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EDUCATION  
AND  
SOCIAL PROGRESS

BY

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## PREFACE

THIS is the age of the Social question. At no previous time have the needs and problems of society been more keenly felt or more earnestly faced. Our social problems are spiritual and ethical as well as economic. In dealing with them two objects must always be kept in view: one is the improvement of the economic conditions of the people, and the other, and no less important, the improvement of personal character. Social workers have been slow to realise that prevention is better than cure, and that the child is the centre of the social problem and our strong hope of its ultimate solution. We have been devoting too much attention to adults and too little to the young. The words of an old writer contain much wisdom: 'Barren land should not be cultivated, nor even once ploughed'; or, as a modern writer even more pointedly puts it, 'Too much money is spent upon the diseased tree, not enough upon the growing twig.'

Let us honestly face the fact that we cannot do much to modify the lives and characters of the adults of the community who have gone astray, but we can do a great deal to bring physical, mental, and moral health into the lives of the children, and to give scope to their infinite potentialities for the good of the nation. Think of the fifteen million children in the



country under fourteen years of age. The whole gamut of human capacity must be represented there, and lying latent in them is the collective power, if properly developed, to make our country the happiest and most prosperous of nations. Hence workers for social amelioration are concentrating their energies more on the training and education of the child than on any other form of social endeavour.

Education, not in the old narrow sense of school teaching, but as comprising all the forces that develop the powers and form the minds and characters of the young, is now recognised as the most important method of social intervention, and the most powerful means by which democracy can secure the realisation of its ideals. As a consequence, there is growing up a new body of educational literature less specialised in substance and less narrow in aim and interest than that which has hitherto been common. It is the aim of this volume to present some of those wider aspects of education, and to show the part that education, properly interpreted and exercised, may play in removing the barriers to social progress, and in improving the condition of the whole body politic.

I desire to acknowledge my great indebtedness to my colleague Mr. James Drever, M.A., B.Sc., Lecturer in Education, Edinburgh University, for revising the proofs and making many valuable suggestions in connection with them.

ALEX. MORGAN.

EDINBURGH,  
*November 1, 1915.*

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# EDUCATION AND SOCIAL PROGRESS

## CHAPTER I

### SOCIAL PATHOLOGY

UNTIL recent times there was a tendency, in Western nations at least, to emphasise the rights of the individual as against the rights of the community, and to regard the State as existing solely for the interests of its individual members. The *laissez-faire* doctrines of the last two centuries exaggerated unduly the importance of the individual, and the danger of interfering with his rights and liberties. Modern social philosophy is opposed to these views. Fouillée correctly represents the opinions of the present time when he says : 'The danger that, above all others, a democratic nation must avoid is the disintegration of society into units with no immediate concern but self-interest, into individuals to whom social duties and bonds are gradually ceasing to appeal.' <sup>1</sup>

<sup>1</sup> *Education from a National Standpoint*, p. 4, by Alfred Fouillée. International Education Series.)

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Individualistic theories if carried to their logical development would lead to the destruction of the State. Hence at the present moment there is a return to something like the old Greek ideal of citizenship, that it is the office of a good citizen to serve the State, to live and, if need be, to die for the State, whose duty it is on the other hand to protect its citizens and to equip them for social service in which they develop their highest individuality. The modern biological conception of society as an organism, the living cells of which are the individual members, is changing the old-time demand for individual liberty to a demand for social solidarity. We prosper only by the welfare of the whole, and if there is disease or degeneration in any part, the entire community suffers thereby. 'If one member suffers all the members suffer with it.' Hence those interested in social welfare are examining the ills of society at the present time with microscopic intensity. There never was a time when there was so much social endeavour, or when so many minds were engaged in examining our social ills, and in planning and working out schemes for their remedy. As a consequence, we know infinitely more than even our parents did about the problems of humanity, and, through the practical application of knowledge fast accumulating, we may confidently hope that a solution of the problems will be found. There is no reason in the nature of things why society should be oppressed for ever by the ills that at present afflict it. If we set ourselves earnestly to the task,

it is within our power greatly to reduce, if not entirely to remove, them. What we have to do is to study with patience the symptoms and causes of the national malaise, and then to apply the appropriate remedies.

It is not necessary in a general treatise such as this to give a minute and exhaustive analysis of the pathological conditions of society. They are chiefly three: poverty, vice and crime, and parasitism and the exploitation of the weak by the strong.

### *Poverty*

Poverty is one of the commonest forms of social disease and one of the chief obstacles to social progress. Whether we advocate the entire abolition of child labour, the extension of the period of compulsory education, the improvement of housing, or any other proposal calculated to ameliorate the condition of the people, we are met at every turn by the same objection—the inability of a portion of the community to bear the increased cost. Our present economic and social conditions are producing an unending supply of broken and destitute people who are always within measurable reach of want, who suffer in body and in mind from lack of the necessities of life, and are unable to lead healthy and useful lives.

Few realise the extent to which our country is suffering from this disease. Mr. B. Seeböhm Rowntree in his work on 'Poverty' makes an exhaustive study of the economic conditions of York, and gives figures which show that ten per cent. of the population of

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the city are very poor. Mr. Charles Booth in 'Life and Labour of the People in London' shows that twelve per cent. of the people are in poverty. The recent investigations made by the Royal Commission on the Poor Laws reveal that over two millions of different persons are granted parochial relief every year, the expenditure for this purpose in England alone being £15,000,000 a year, and in Scotland £1,286,000, or altogether an average of 5s. 6d. per head of the population of the United Kingdom—*about the same as we spend on education.*<sup>1</sup> In addition to this at least nine millions sterling are expended in relieving poverty each year by public and private charities throughout the United Kingdom. The sum disbursed by charities in Edinburgh amounts to the large total of £290,000 a year, and from the Poor Rates £95,000.

From figures such as these it is unfortunately but too plain that there are at all times within the United Kingdom between three and four million people of all ages on the borderland of destitution. The sufferings of these people have been thus described in a recent study ('Poverty,' by Robert Hunter): 'As a class they have the longest hours of work, they have the lowest pay; they have competition of the severest kind to face; they are oppressed by sweating methods; their employment is irregular; their tenements are the most insanitary, and their rents

<sup>1</sup> Mr. Rowntree shows that of the total expenditure of the city of York, 16 per cent. is spent on pauperism, 7 per cent. in dealing with crime, and 12 per cent. on education.

relatively the highest that any class pay ; the prices for food and fuel are exorbitant, because they must buy in small quantities ; when they find it necessary to go into debt they are fleeced by loan sharks ; they are most often ill ; they bear the burden of more deaths than any other class ; and being without savings they are in actual distress as soon as they are unable to work, or as soon as they are unemployed as a result of economic or other causes.'

The poverty of our country districts is a very different thing from the congested poverty of our large towns, where it withdraws itself into the social swamps called slums. The condition of the slum-dweller is truly described by Mr. and Mrs. Sidney Webb in their recent work on 'The Prevention of Destitution.' 'Destitution in a densely-crowded modern city means, as all experience shows, not only oncoming disease and premature death from continued privation, but also, in the great majority of cases, the degradation of the soul. Massed in mean streets, working in sweating dens, or picking up a precarious livelihood by casual jobs ; living by day and by night in overcrowded one-room tenements through months of chronic unemployment or persistent under-employment ; infants and children, boys and girls, men and women, together find themselves subjected—in an atmosphere of drinking, begging, cringing, and lying—to unspeakable temptations to which it is practically inevitable that they should in different degrees succumb, and in which strength and purity



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of character are irretrievably lost. Anyone acquainted with the sights and sounds and smells of the quarters of great cities in which destitution is widely prevalent—especially anyone conversant with the life-histories of families below the “Poverty Line”—learns to recognise a sort of moral malaria which undermines the spiritual vitality of those subjected to its baleful influence, and, whilst here and there a moral genius may survive, saddened but otherwise unscathed, gradually submerges the mass of each generation, as it grows up, in coarseness and bestiality, apathy and cynical scepticism of every kind.’

And what of the children of the slums, the innocent victims, as Hall Caine says, of the social maelstrom ?

Is this a holy thing to see  
In a rich and fruitful land,  
Babes reduced to misery,  
Fed with cold and usurous hand ?

And their sun doth never shine,  
And their fields are bleak and bare,  
And their ways are filled with thorns :  
It is eternal winter there.

For where'er the sun doth shine,  
And where'er the rain does fall,  
Babes should never hunger there  
Nor poverty the mind appal.<sup>1</sup>

In the name of our humanity let us do what is in our power to remove, as far as may be, the heavy

<sup>1</sup> William Blake.

handicap on their young lives, and to rescue them from the influences of their surroundings of poverty and crime.

We have only referred as yet to the three or four millions of our population in actual poverty. Great as their number is, it is small compared with those who live on the border line of poverty, always within measurable reach of starvation, and in a condition fluctuating between want and the fear of want. Twelve or thirteen millions<sup>1</sup> not actually overtaken by poverty have their lives overshadowed by a bitter and relentless struggle for the means of subsistence for themselves and those dependent on them. When all is well they may be able to keep the wolf from the door, but they know that he is waiting to enter the moment there is sickness, or accident, or depression in trade. Something is wrong with a civilisation in which nearly a fourth of the people live, as in this country, below the level of fairly comfortable subsistence.

### *Vice and Crime*

On the prevalence of vice and crime as a social disease there is no need for us to dwell. 'Sin is the longest, heaviest drift in human history. . . . Men have reared against it government, education, philosophy, system after system of religion. But sin has overwhelmed them all.' So writes Dr. George Adam Smith, Principal of Aberdeen University.

<sup>1</sup> See *Poverty*, by W. Reason, M.A., pp. 12-41. (Headley Bros.)

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About a million of our population are committed to trial every year for criminal offences great and small, and more than half of these, in spite of our prisons and penal code, return to their careers of wrongdoing. Our annual drink bill is £161,000,000, and betting and other forms of gambling are indulged in by vast numbers of our population. If these two vices alone could be removed a vast number of families would at once rise from poverty into the ranks of those living in comfort, and rearing families well clothed and well fed.

### *Exploitation and Parasitism*

Exploitation is a common process both in the natural and the economic world. Natural selection and evolution are one long series of exploitations. So too in human society, so long as men are regarded as a means of production and of money making, and not primarily as spiritual beings with infinite potentialities, on the cultivation of which eternal issues depend, so long will the strong and intelligent prey upon the weak and ignorant and take advantage of them. This runs all through history. When Plato planned his Republic and Aristotle his ideal City-State, they took for granted that the educated citizens should be supported by the rest of the population. When in the Middle Ages a leisured class made up of the nobility and the cultured arose, it was natural in the existing conditions for its members to assume that they should be supported by the labour of the

masses. And even when, in more recent times, the wage system replaced the various forms of feudal slavery the spirit of exploitation remained.

In modern times exploitation takes new forms— industrial concerns run solely for profit, sweating at the expense of the health and happiness generally of women and juvenile workers, and idleness preying on the industry of others and yielding no service to society in return. No community can afford to support permanently a mass of social parasites—the unemployed rich and idlers of every class, the pauper, the tramp, the criminal—all, in short, who are supported by the industry of the rest of the population and add nothing themselves to the sum total of achievement, whether in the realm of industry and commerce, or art and science, or morals and religion. Mankind is born to labour, and if society would rid itself of this form of disease it must put inflexibly into force the Scriptural injunction that ‘if any will not work neither shall he eat.’

If we consider the prodigious waste of work and life and the loss of spiritual power to the world by the diseases of society, we cannot fail to be impressed by the urgent need to find and apply a remedy for them. They are a barrier to social progress, they drag down the national life. At present only part of the energies of the nation are available. We are handicapped like the builders of the walls of Jerusalem, everyone of whom ‘with one of his hands wrought in the work,

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and with the other held a weapon ' to ward off the enemies of the nation. We are within the mark if we say that in our islands a quarter of a million of the adult population is supported entirely by the community, and that four times that number is supported partly by it. These million and a quarter represent a loss of productive power to the nation of at least twenty-five million pounds per annum. The criminal classes represent an equal loss of productive power. Moreover, the money value of the products of society consumed by all these amounts to about the same as the productive power withheld—namely, fifty million pounds. Further, to complete our computation we must remember that this mass of defective society requires for its support or restraint a vast series of contrivances and institutions—asylums, workhouses, hospitals, courts of law, reformatories, prisons—all in an economic sense non-producing. In money terms these counterpoises to the defective, dependent, and criminal sections of the community equal all the other sums put together.<sup>1</sup> If we estimate the annual pecuniary burden caused by the social diseases of the nation at two hundred million pounds, we shall not rate it too highly—truly ' an arithmetic of woe.' But if we further estimate it in terms of human misery and suffering, mutilated character, and destruction of spiritual power, the loss to the nation is appalling.

<sup>1</sup> See *Destitution, Can we end it?* p. 8, by Rev. Henry Carter. (London : J. J. Stark.)

## CHAPTER II

### IMPERFECT REMEDIES OF SOCIAL DISEASES

A DESIRE for the alleviation of the ills of society is moving all ranks and conditions of men. The practical question that faces every earnest mind is: what can the nation do to prevent the continuance of the discreditable and blighting state of affairs which has just been described? Society has as yet seriously tried but two remedies—deterrence and relief; and the result has been a complete failure to remove, or even greatly lessen, our social ills.

Until the present generation our main remedy for crime has been the prison. Recent investigations have shown that as a deterrent from crime the influence of imprisonment has been greatly over-estimated. It is calculated that about seventy per cent. of the inmates of our gaols have been imprisoned before—many of them several times. Consider the effects of this. A French writer, M. Lacassagne, has said that ‘when a man has been two or three times in the prison of Paris we can have no further hope of him; he is a gangrenous member of the social body.’

Our prison system has failed because its chief aim

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has been to punish crime rather than to reform character. Little real attempt has been made to make criminals into useful citizens. We have ample evidence to show that too often imprisonment hardens the criminal, and sends him back to the world no better qualified and no more inclined to lead an honest life than before. Sir Godfrey Lushington, in giving evidence before a Departmental Committee presided over by the Home Secretary of the day, Mr. Herbert Gladstone, said, 'I regard as unfavourable to reformation the status of a prisoner throughout his whole career; the crushing of self-respect; the starving of all moral instinct he may possess, the absence of all opportunity to do or receive a kindness, the continual association with none but criminals, the forced labour, and the denial of all liberty.' Mr. W. F. Spaulding writing in the *Forum* says, 'Crime can no more be reduced by punishing or even reforming the criminal than an epidemic of smallpox can be stopped by curing its victims. The criminal is a product, and crime can be decreased only by stopping the production.'

Legislation, at the best, can do comparatively little to remedy social evils, and in the prevention of crime even that little has not been done because for centuries our legislators have been viewing the matter from the wrong standpoint. They have been devoting their attention too exclusively to the crime, and in their concern to 'make the punishment fit the crime' they have lost sight of the criminal. Now we

are concentrating our attention upon the latter, and we find that he is not innately and hopelessly vicious, that his criminality is the resultant largely of defective physical and mental training, and bad physical and social environment. If this be so, the remedy for crime is not punishment but removal of the conditions that cause it, and a thorough process of training and education for some useful calling. Reformatories conducted on educational lines are slowly replacing the old prison régime. We have begun the new process by the Borstal System of training youths who, between the ages of sixteen and twenty-one, have been sentenced to imprisonment for at least twelve months. During their period of confinement they undergo educative and reformatory treatment preparing them for useful callings. The system has been successful in the great majority of cases, and it is probable that similar methods will be extended yet to a considerable proportion of adult criminals.

Our Poor Law system has proved equally inadequate as a remedy for poverty, and it has done so because its root principles are deterrence and relief, not prevention. It has not reached the sources of poverty; and whether the poverty has been brought about by the fault of the person himself or of the community as a whole, whether the cause be moral or economic, physical or mental, the Poor Law requires that the stage of destitution must have been reached before help can be given. 'Thus it ordinarily deals with this social malady at its crisis, not at the



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commencement. At the crisis of destitution the family is a battered, breaking wreck, often past hope of salving; had help been forthcoming when the storm first broke—help that self-respecting folk could accept without forfeiting self-respect—final disaster would probably never have been reached.’<sup>1</sup>

The workhouse too often promotes rather than cures the evil it was intended to combat. By its indiscriminating relief of destitution it provides in many cases only a subsidy to misconduct. Further, it does nothing to build up the character of the able-bodied paupers who seek its shelter, or to enable them to become self-dependent and self-supporting. The recent Report (1909) of the Royal Commission on Poor Laws strongly condemns the workhouse system. ‘These institutions [workhouses] have a depressing, degrading, and positively injurious effect on the character of all classes of their inmates, tending to unfit them for a life of respectable and independent citizenship. Life in the workhouse does not build character up, it breaks down what little independence and alertness of mind is left. It is too good for the bad, and too bad for the good.’ Mrs. Bosanquet, one of the Commissioners, in her volume on ‘The Poor Law Report’ says, ‘The Commissioners were convinced, both from the evidence they received and from what they themselves saw, that there is a class of persons to whom workhouse life has ceased to be deterrent, and that many even of those who shrink

<sup>1</sup> *Destitution, Can we end it?* p. 8, by Rev. Henry Carter.

from it at first rapidly deteriorate under its influence, until they prefer it to the more strenuous and responsible life of the outside world.' If we want the poor to be always with us the continuance of the Poor Law and Workhouse system, as at present planned, will do much to bring about the result.

In addition to State Relief all nations have made, to some extent at least, voluntary provision for the care of the poor and helpless among their people. Charity, public and private, may have an important influence on the spirit of those who exercise it, and the note of humanity in it is probably worth all it costs; and while no one would seek to dry up entirely this stream of human sympathy, its general influence upon the recipients is open to serious question. It is an imperfect remedy for poverty in at least four respects—it is wasteful, it is indiscriminating, it is spasmodic and inadequate, and it does not prevent or cure the disease against which it is directed.

Everyone acknowledges that a large part of the millions of pounds disbursed every year in the United Kingdom in what is broadly called charity is 'poured into a slough of poverty which swallows it up, and leaves no trace of improvement.' The waste of money is a great evil, but the waste of character is a greater. Charity given to those who should not receive it undermines self-respect and self-reliance, and encourages laziness, hypocrisy, and self-indulgence. In such cases charity gathers parasites round it, and

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only intensifies the need and degradation it was intended to relieve. There are times when giving alms is truly no charity.<sup>1</sup> Churches, Charitable Associations, and philanthropic individuals have overlapped in their keen desire to administer relief, and have not always made sure that the recipients were not getting similar help from other sources, nor taken care that the money was reaching the really deserving and needy. By impulsive, indiscriminate giving, the really necessitous have often been overlooked, the wants of the work-shy and the bogus poor have been plentifully supplied, and our towns have been overrun by professional beggars who have reduced begging to a fine art. Charity may be so harmful in its results and may so aggravate existing evils as to be positively immoral.<sup>2</sup> We do not for a moment suggest that charity should never be given, but we assert that the wise distribution of charity is one of the most difficult and delicate forms of social service, and should be engaged in only by those who have a full knowledge of the causes of poverty, and of the lives of those whom they desire to help. Poverty, for instance, due to industrial causes is not a problem which charity organisations can successfully deal with; such cases are complicated ones, and money help will do little for them. Can we wonder that there is often wrung from the sufferers the bitter

<sup>1</sup> See Daniel De Foe's *Essay on Giving Alms no Charity*.

<sup>2</sup> See *The Prevention of Destitution*, by Sidney and Beatrice Webb, pp. 298 *et seq.* (Longmans, Green, and Co.) This is the most important work yet written on the remedies of destitution.

cry, 'Curse your charity; we want work.' Or again, where poverty is due to personal fault, financial help will only make matters worse unless it is accompanied by a successful demand for effort and improvement on the part of the recipient. A cruel feature of the giving of charity is that it does not generally raise those who receive it above the need of further assistance, it does not make them able to bear their own burden, it does not communicate to them the energy and initiative to take advantage of opportunities to help themselves. Rather it tends to destroy what initiative they have, and to make them more dependent.

The spirit of philanthropy and charity was never so widely spread as it is to-day. It is fostered by the pulpit, the platform, and the press. And yet there is growing a keen sense of the total inadequacy of all our charity to cope with the evils of poverty. While we assist one family, a hundred others are drifting without hope into the morass of destitution. Our best efforts at relief do nothing to drain the social quagmire. Our spasmodic and inadequate doles generally do harm rather than good. Mr. Charles Booth, in the volume we have already referred to, says, 'Churches, Chapels and the like intervene and give a little help, and the widow struggles on for a time receiving something one week and nothing the next, she and her children becoming generally weaker, both morally and physically, through want of proper and sufficient food, and ultimately broken down in

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more difficult than a policy of relief. It involves much mental labour, much patient investigation, and the formulation of suitable plans of curative and preventive treatment. There is no royal road to the solution of our social problems.

## CHAPTER III

### THE CAUSES OF SOCIAL DISEASES—HEREDITY

THE aim of the preceding chapters has been to show that the ills that retard the progress of society are measurable, preventable, and curable. Our remedies have not succeeded because we do not know enough as yet of the causes at work or of the methods to be applied. Superficial diagnosis will not help us to heal our social maladies. It is futile to denounce, as is sometimes done, certain classes of the community as responsible for them, or to attribute them to human fallibility or original sin. Some of the best minds are now seeking to discover a remedy. A new spirit of inquiry is abroad which 'is slowly elaborating a knowledge of the diseases, and with the elaboration and completion of this scientific diagnosis is bound up all the future hope of the world.'<sup>1</sup>

The diagnosis is by no means easy, for we have to deal, not with human nature alone, nor with physical nature alone, but with social life, which arises from the interaction of the one with the other. We have to

<sup>1</sup> *The Church and the Poor*, p. 8, by Rev. W. Muir, B.D. (Edinburgh : Macniven & Wallace.)

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thread our way through an intricate maze of causes and effects, distinguishing always between those which are proximate and those which are remote. Anything short of this will lead to mistaken diagnosis, and, as we saw in the last chapter, to inadequate or unsuitable remedies. The tendency to this is the greater because the maladies themselves are on the surface, and first-aid alleviations are at hand to tempt us. What is more natural than to meet the evil of poverty by public or private charity, and in doing so to avoid the trouble of finding out whether the poverty is only temporary and requiring financial help, or whether it is due to some deeper cause in our economic or national life? Ready-made panaceas should be distrusted as a means of securing either social or physical health.

It is not necessary for our general purpose to enter into a minute analysis of the causes of the typical diseases of our social order mentioned in the opening chapter. An almost infinite variety of causal conditions exist which run in and out of each other; but we shall confine ourselves to three which appear to us fundamental, and which include nearly all minor causes that can be mentioned—they are defective heredity, defective environment, and defective education. We shall examine these in turn.

### *Heredity*

It is a law of nature that descendants tend to resemble their ancestors. Like tends to beget

like. It is a matter of common observation that children resemble their parents, tend to have dispositions similar to them, and may even exhibit the physical and mental traits of ancestors several generations removed. This transmission of ancestral characteristics is called heredity. It is one of the great active principles of nature. It seems a simple and elementary law so long as we confine ourselves to physical heredity, to the transmission from parents to offspring of distinguishing characteristics of structure, form, and constitution. It is a common saying that if we want to secure a healthy man we must go back to his grandfathers and see that they are fit. Life Insurance Companies know the influence of heredity. There is more doubt, however, in the minds of some when we extend the law beyond the physical into the region of the intellectual and the moral. Yet, just as surely as we have physical heredity, so do we have mental and moral heredity. The recognition of this is a thing of yesterday, and the mediaeval doctrine of innate ideas has given way only slowly before it. Mind is not an uncreated first cause; in the mental as in the physical realm there is transmission, not creation. Sir Francis Galton writing in 1865 said, 'The human mind was popularly thought to act independently of natural laws, and to be capable of almost any achievement if compelled to exert itself by a will that had a power of imitation. Even those who had more philosophical habits of thought were far from looking upon the



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mental faculties of each individual as being limited with as much strictness as those of his body, still less was the idea of hereditary transmission of ability clearly apprehended.’<sup>1</sup> Professor H. H. Horne of New York University writes with equal definiteness: ‘The intellectual child is not a happen-so, nor the lazy child, nor the weakly emotional child, nor the industrious child, nor the honest child. These, and all the other mental traits which together constitute that psychic complex we call his soul, are really the equivalent on the mental side of certain definite elements in his nervous system inherited from his ancestors.’<sup>2</sup> Or again, as Professor Karl Pearson said in his ‘Huxley Lecture’ in 1903: ‘We inherit our parents’ tempers, our parents’ conscientiousness, shyness, and ability, as we inherit their stature, forearm, and span.’ Verily—

There is a history in all men’s minds  
Figuring the nature of the times deceased.

Ribot in his valuable treatise on ‘Heredity’ makes an exhaustive study of the heredity of the various psychological elements—instincts, imagination, memory, will, temperament, and capacity. Our instincts are echoes of the past reverberating through our nervous system, they are inherited tendencies to activity in the cells of our nervous mechanism which

<sup>1</sup> Preface to *Hereditary Genius*.

<sup>2</sup> *Idealism in Education*, p. 21. (Macmillan & Co.) Anyone interested in the bearings of heredity and environment on education could not do better than read chapters ii. and iii. of this suggestive book.

enable us to act, feel, or think without having learned to do so. We have the instinct<sup>1</sup> of locomotion which enables the child to extend in innumerable ways his exploration of the world. We have the instinct of activity and constructiveness which, as James says, enables 'the child not only to train the muscles to co-ordinate action, but to accumulate a store of physical conceptions which are the basis of his knowledge of the material world through life.' We have the instinct of curiosity which constitutes the child a born investigator. We have the instinct of play which develops the muscles, and acts as a tonic to the brain and the whole nervous system. We have the social instinct which forms the groundwork of the training of the child for his place in society. The list might be prolonged almost indefinitely; indeed, as some one has said, 'man is a great complex of tendencies to act, feel, and think in certain ways.' Without these inherited instincts, education and development, physical or mental, would be impossible.

We may say, then, that what we are capable of becoming in body, mind, or character with our utmost development is our inheritance. 'The older one grows,' says Goethe, 'the more one prizes natural gifts, for by no possibility can they be procured and stuck on.' We cannot by taking thought add a cubit to our physical or mental stature beyond our

<sup>1</sup> We are here using the word 'instinct' in the older and wider sense, rather than in the stricter sense in which some recent psychologists use it.

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inherited limits. In this the modern theory of heredity and the venerable doctrine of predestination agree. The influence of heredity is all-pervading. 'Every child at birth is endowed with a heritage transmitted from innumerable ancestors . . . which decides the individual's race and strain, and potentially inclines, if it does not actually coerce, his tastes and ambitions, his fears and hopes, his failure or success.'<sup>1</sup> Observe, however, that it is capacity we inherit, not actual attainment, which depends upon the amount of effort we make, and always falls short of the potentialities of our nature set by heredity.

But it is the evil influences of heredity that we are concerned with in our present study, for unfortunately they are obstinate hindrances to social progress. Many a luckless child is handicapped by hereditary influences from the hour of his birth, and no subsequent care can secure for him an efficient social life :

My child is mine,  
Yet all his gray forefathers of the past  
Challenge the dear possession : they o'ercast  
His soul's clear purity with dregs and lees  
Of vile unknown ancestral impulses ;  
And viewless hands from shadowy regions groping  
With dim negation frustrate all my hoping.<sup>2</sup>

The sins of the fathers, we are told, are visited upon the children unto the third and fourth generations, and modern science tends to corroborate the statement.

<sup>1</sup> G. A. Dorsey in *Science*, xi. 119.

<sup>2</sup> From *At Bay*, by May Byron, quoted by Professor Horne.

Heredity is responsible for the lifelong handicaps to which many are condemned—such as blindness, deaf-mutism, idiocy, insanity, constitutional disease tendencies, and predisposition to vice and crime.<sup>1</sup> Those thus afflicted do not get, as we say, a ‘square deal’ at birth. This is the lot of many of the children in the dens of our large cities.

They look up, with their pale and sunken faces,  
And their look is dread to see,  
For they mind you of their angels in their places  
With eyes meant for Deity.<sup>2</sup>

When once we grasp the full import of the doctrine of heredity, and the mighty influence for ill it can and does exert on the physical, intellectual, and moral nature of mankind, we must regard it as one of the great fundamental causes of the disease of society.

<sup>1</sup> One of the most frequently quoted illustrations of this is the case of the notorious Juke family. Their history was investigated by R. Dugdale, and was published in the Annual Report of the New York Prison Commission in 1877. He traced the brood back to a worthless drunken vagabond born about 1720 who married a woman as worthless as himself. They reared a family of vagabonds who in course of time married others of the same class. In 1877 the descendants, direct and indirect, numbered 1,200, of whom 300 had died in infancy, 400 were thieves, 130 incorrigible criminals, and 310 professional vagrants. They cost the State of New York in all a quarter of a million pounds.

<sup>2</sup> *The Cry of the City Children*, by Mrs. Elizabeth Barrett Browning.

## CHAPTER IV

### THE CAUSES OF SOCIAL DISEASES—ENVIRONMENT

HEREDITY is the alpha but it is not the omega in the development of complex human nature. It is not the only and supreme force at work ; if it were, we might well be weighed down by a sense of the burden handed on to us from a past entirely beyond our control. Heredity decides to a large extent what our native capacity shall be, but environment determines in the main what use shall be made of that capacity, whether in the physical, intellectual, or moral sphere.

By environment, in a general sense, we mean the physical circumstances in which an organism develops. Writers from Plato to Darwin have called attention to the influence of air, climate, fertility of the soil, and conditions of nutrition in fashioning mankind by their incessant action. In the biological world the growth and indeed the very existence of an organism are dependent upon its adaptation to its surroundings. If the environment does not afford scope for the activity of the organism its development is stunted. It cannot exist apart

from its environment. The very life-process of the organism consists in the interaction between it and its environment.

As in the biological so in the intellectual and moral sphere. Mental life is a continual action and reaction between two elements—self and environment—and it is by the interaction of these that the mind lives and develops. Mind cannot exist or develop *in vacuo*; it is not, in this life at any rate, a spiritual substance existing independently of the objective world. Pure mind or isolated consciousness is an abstraction of metaphysics; we do not meet it in actual experience. A man has to spend his life in certain intellectual and moral surroundings, and from these surroundings he must draw to a large extent his mental and moral sustenance.

Yet we must not look upon man as the victim of an inflexible unyielding environment to which he must adapt himself. In considering the development of human society it is possible to lay too great stress upon adaptation to environment. Complete conformity or adjustment to environment is not the final goal of human progress. Man in virtue of his intelligence and his will is able to rise superior to environment, to conquer all influences in it detrimental to his mental and moral well-being, and thus to utilise it as a means of self-expression, of exercise, and of growth. Environment, in short, provides the opportunities for the development of the capacities that heredity has bestowed. Browning expresses

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with true philosophic insight the relation between the world within and the world without :

I count life just a staff  
To try the soul's strength on, educe the man.

The success or failure of individuals in life is measured largely by their power of adjustment to environment, and of controlling and utilising it to draw forth their capabilities. If we would truly understand the meaning of life, we must regard the interaction between man and environment as a spiritual and not a purely mechanical process. A person's environment is of one kin with himself, and furnishes the opportunity and indispensable medium of his self-realisation. It is an important function of education, as we shall see, to enable him so to use it.

But before entering further into a discussion of the relationship between man and environment, we should arrive at some preliminary understanding, at least, as to the exact nature and scope of environment. We are not concerned with the differences of opinion among scientific men as to the precise meaning of 'adjustment' and 'environment.' For our purpose environment includes all the influences and agencies whatsoever operating to mould the individual. It is made up of two factors—the material and physical environment, and the social and spiritual environment.

The material and physical environment includes such influences as air, light, heat, climate,

scenery, mineral wealth, natural harbours and navigable rivers, stores of natural energy such as coal, wood, and running water; it consists, in short, of nature organic and inorganic. A recent writer states well the influence of physical environment on man. 'Historians,' he says, 'have long since noted and emphasised the far-reaching importance of climate and geographic surroundings upon the development of peoples. The mountains and coast lines of Greece, the seven hills of Rome, the arctic winter and intolerable nights of Greenland, the torrid sun and sweltering heat of Africa, and the fertile fields of America have formed the texts for many a chapter designed to show the effect of environment in shaping destinies. Reverse the surroundings of the Eskimo and the New Englander, the Briton and the Abyssinian, and what inversions of character might have ensued! Indeed, we may say that the chance environment surrounding one's birthplace to a large extent determines whether one is to be a dreamer or a doer, an idler or a producer, a savage or a progressive citizen.'<sup>1</sup>

The social and spiritual environment is concerned with man as a doer, thinker, and worshipper. It includes the great human institutions—the Home, the School, the Vocation, the State, and the Church, all forms of societies and organisations, spiritual beliefs and moral standards, our ideals, customs, public opinions, fads and fashions, all the intellectual,

<sup>1</sup> *Principles of Education*, by F. E. Bolton, p. 24. (T. Fisher Unwin.)



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material, and moral achievements of the race, our language and literature, arts and science—in short, all the fruits of civilisation. Nearly all the influences and problems of life meet in the social and spiritual environment.

It is not necessary to discuss at length the relative importance and specific effects of these two groups of enviroing influences in the development of the race. In the earlier stages of civilisation the influence of physical environment predominates. Depending as he does on what nature spontaneously supplies, primitive man flourishes best under kindly skies and on fertile soil where vegetable and animal food supplies are abundant. But as mankind rises in the scale of civilisation, the social and spiritual environment becomes more potent, and man is able at the same time, to an increasing extent, to master and change his environment as well as to adjust himself to it. 'He modifies climate by clothing and housing, he adds to the productivity of the soil by right cultivation and by fertilisers; if good ports or rivers are lacking, he digs harbours and transports his goods on canals or railways; if natural power in its older forms is insufficient, he utilises other forces of nature by the scientific developments of steam and electricity; and if his own region fails to supply him with ores, he imports them from his neighbours. In other words, while man is largely determined by his environment, social as well as physical, he himself decides by intellectual processes what environment he desires

to be subjected to, and then deliberately seeks to create about him such an environment.'<sup>1</sup> The whole progress of civilisation has been accompanied in this manner by a gradual freeing of mankind from subserviency to his environment.

The forces of environment may act in two opposite ways: they may feed, stimulate, and energise, or they may starve, repress, and kill; and the resultant development depends upon the ratio of the one action to the other. The influence of environment for good or ill is depicted by Plato in his 'Republic' in a passage of great beauty<sup>2</sup>: that young citizens 'must not be allowed to grow up amid images of moral deformity, as in some noxious pasture, and there browse and feed upon many a baneful herb and flower day by day, little by little, until they silently gather a festering mass of corruption in their own soul.' Rather should they be like men living in a beautiful and healthy place; 'from everything that they see and hear, loveliness like a breeze should pass into their souls,' and teach them, without their knowing it, the truth of which beauty is a manifestation.

It is the pressure of environment that causes many, perhaps most, of the diseases of society. Destitution, for example, is largely due to environmental influences. The pressure of economic conditions makes and keeps men poor. Differences of moral and industrial efficiency doubtless do determine in the majority of cases who shall succeed or fail in the

<sup>1</sup> *Sociology*, by J. Q. Dealey, p. 97. (Silver, Burdett & Co.)

<sup>2</sup> *Republic*, bk. iii. 401.

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struggle for employment, but in very many instances the number of those who fail is determined by economic factors beyond their control. As the Minority Report for Scotland of the recent Royal Commission on the Poor Laws says: 'Experience has demonstrated that, although individuals in all sections of the destitute may be morally defective, and this in all sorts of different ways, the great mass of destitution is the direct and almost inevitable result of the social environment in which the several sections have found themselves, and that it can be obviated if the cases are taken in time and the environment appropriately changed.' The destitution of so considerable a proportion of our population as at present is not a part of the inevitable and necessary nature of things. It is due to defects in our human institutions, our social arrangements, our education, our business, our industry—in short, to the pressure of social environment in some form or other.

The harmful pressure of environment has become greatly accentuated in our day by the tendency of the population more and more to collect in crowded cities. A century ago something like seventeen per cent. of our population lived in large towns, half a century ago fifty per cent. was urban, now the percentage has risen to nearly seventy-five, and the census of 1912 shows that the transference from country to town is still going on. The home by the growth of large cities has lost its industries and its surrounding playground, and as a result much of its educational

possibilities. Moreover, the wear and tear of life in great towns induces mental diseases, or diseases of the nervous system. As Professor M. V. O'Shea says: 'As one studies Old-World civilisation in general, he reaches the conclusion that no nation has yet discovered how to preserve continuously the physical and moral vigour of the people under conditions of urban life. The human body and mind were evolved in close contact with nature, and the evidence seems conclusive that they will not develop completely in the individual under the restraint and irritations of the city.' <sup>1</sup>

The congestion of our modern cities is leading to serious overcrowding. In London there are 150,000 one-room houses in which are living 313,300 persons, that is an average of over two persons in each room. There are about 20,000 persons living five in a room, and a like number living six, seven, or eight in a room. Think of the physical, social, and moral environment engendered by such conditions! Little wonder that the crowded slums of our towns are the great recruiting ground of the disease, destitution, intemperance, vice, and crime which constitute the main factors in the social problem.

And what of the children reared amid such surroundings? From the hour of their birth they are doomed, almost inevitably, to hardship and suffering. George Macdonald's lines describe their case:

Where did you find that little tear?  
I found it waiting when I got here.

<sup>1</sup> *Social Development and Education*, p. 307. (Houghton Mifflin Co.)

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Remember, too, that the influence of environment for good or ill is most powerful over childhood with its highly impressionable nature, great plasticity, extreme suggestibility, and infinite capacity for imitation.

A small part of a child's intellectual or moral nature is inborn and peculiar to him; by far the greater part is conditioned by the interaction between his inherited mental and moral nature and his environment, particularly the minds and characters of those around him. What then of those who are allowed to grow up amid degrading scenes of vice and crime? Too often, in the terrible words of Blake—

Stricken with Albion's curse,  
They become what they behold.

As Tennyson exclaimed, they 'soak and blacken soul and sense in city slime.' The description of child-life in the slums by Dickens in 'The Uncommercial Traveller' is not untrue yet. 'I can find—must find, whether I will or not—in the open streets shameful instances of neglect of children, intolerable toleration of the engenderment of paupers, idlers, thieves, races of wretched and destructive cripples both in body and mind; a misery to themselves, a misery to the community, a disgrace to civilisation, and an outrage on Christianity. I know it to be a fact as easy of demonstration as any sum in any of the elementary rules of arithmetic, that if the State would begin its work and duty at the beginning, and

would with the strong hand take those children out of the streets while they are yet children, and wisely train them, it would make them a part of England's glory, not its shame—of England's strength, not its weakness—would raise good soldiers and sailors and good citizens and many great men out of the seeds of its criminal population ; it would clear London streets of the most terrible objects they smite the sight with—myriads of little children who awfully reverse our Saviour's words, and are not of the Kingdom of Heaven but of the Kingdom of Hell.' <sup>1</sup>

Improvement in the environment of the slum child within and without the home will play a large part in the solution of our social problems.

It is hardly necessary for the purpose of the study we are conducting that we should attempt a precise estimate of the relative importance of heredity and environment in shaping the course of human development. The present-day controversy regarding this is merely the modern form of the time-honoured discussion of Nature versus Nurture. The controversy is, however, assuming a new importance because of its bearing on social reform. Social and educational workers must know something of the relative strength

<sup>1</sup> Henry George in a striking passage in *Progress and Poverty* says: 'It is my deliberate opinion that if, standing on the threshold of being, one were given the choice of entering life as a Tierra del Fuegan, a black-fellow of Australia, an Esquimau in the Arctic Circle, or among the lowest classes in such a highly civilised country as Great Britain, he would make infinitely the better choice in selecting the lot of the savages.'

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of the forces arrayed against them. The eugenicists and certain scientists, led by Sir Francis Galton and Professor Karl Pearson, have examined the matter by exact methods, and have reached the conclusion that inheritance is the more important influence, and that environment counts for comparatively little. It is by heredity, they say, that the soul from birth has its predestined form, that our characters are moulded, our physique determined, and our intelligence meted out. Humanity, they affirm, can be raised chiefly by improving the hereditary strain of the race through a process of selective mating, and through the prevention of the propagation of children by the physically and morally unfit.

But the evidence produced by the investigations of modern biological and sociological science tends, in the main, to show that the admittedly powerful influence of heredity in causing even physical degeneracy has been greatly over-estimated. Dr. Alfred Eichholz, one of the Medical Officers of the Board of Education, and a former Fellow and Lecturer of Emmanuel College, Cambridge, strongly expressed this view in his evidence before the Inter-Departmental Committee on Physical Deterioration.

Whatever may be the case of the congenitally feeble-minded, the epileptics, and the deaf-mutes, most of our physical deficiencies are not inheritable. Nature tends to give every generation a fresh start. About 80 per cent. of children are born healthy, and the vast majority of the failures in life have been

produced by the physical and social environment to which they have been exposed. The expression of hereditary nature depends largely on environment. At birth, the individual is equipped with the plasticity of mind and the capacity of development which are his inheritance; but the direction and extent of the development depend mainly upon influences and stimuli from the external world. 'I am a part of all that I have met,' says Tennyson in 'Ulysses,' and this is the tendency of the teaching of present-day science.

If we could remove the influence of evil environment hardly ten per cent. of the population, if so many, would prove unfit from other causes. Criminality, for instance, is not specifically a matter of heredity any more than phthisis is. Those who fill our prisons have inherited not criminality, but lack of control of the nervous system and certain weaknesses of mind and character, all of which serve as a good soil in which the seeds of crime may grow rankly if sown by an evil environment.

In proof of the dominating influence of environment, we have only to recall the fact that change of environment at an early age nearly always produces a change of character. Hence the marvellous success that has attended the taking of children from the slums and the worst of parents and placing them in good homes. In this environment the vast majority grow up good citizens, whereas we know that if they had remained in their original surroundings they would



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almost inevitably have become paupers, evil-doers, or criminals. The rescue work among young children by the late Dr. Barnardo, Mr. Quarrier, and others shows that, no matter what the parents may be, if the children are taken away and placed in good homes before they have been contaminated by the wickedness around them, they in almost every case do well.<sup>1</sup>

In attempting to estimate the relative influence of heredity and environment we must bear in mind that it is impossible to draw a sharp line between the effects of the two, for in very many cases inheritance is but the stored up effects of past environment. This is true of our physical and mental heredity which has been influenced by the environment of our ancestors back to the dawn of human life. It is even more true of what has been called social heredity, which is really a form of environment. Social heredity includes the political and social system of the nation, the social influences, 'the circle of thought, the atmosphere of ideas, the culture inheritance into which the individuals of the nation are born.'<sup>2</sup> These

<sup>1</sup> Statistics show that over 97 per cent of these children rescued from the slums become respectable, self supporting citizens.

<sup>2</sup> Dr. F H Hayward's *Education and the Heredity Spectre*, p. 18. (London: Watts & Co) This work discusses in a masterly way the relative influence and educational significance of heredity and environment. The author brings forward strong reasons for believing the influence of environment paramount. 'Heredity,' he says, 'seems at present mainly a theme for novelists and playwrights, a *deus* (or *diabolus*) *ex machina* of sociological and pedagogical thinking, called in whenever men are too ignorant or too indifferent to push their inquiries far. The notion of heredity tickles the modern imagination in much the same way as the notion of the devil tickled the imaginations of mediæval men. There is something fearsome and fascinating about

are far more potent than physical heredity in shaping the mind and character of the nation. As Sir Ray Lankester said in his Presidential Address to the British Association: 'The mind of the human adult is mainly a social product, and can be understood only in relation to the special environment in which it develops, and with which it is in perpetual interaction. . . . The recognition of this truth seems to be the most important advance in psychology in recent years.'

Whatever be the truth regarding the relative influence of heredity and environment, our immediate duty is obvious—namely, to see that by wise restrictions every child gets a 'square deal' at birth, and is given thereafter a fair chance of full physical, intellectual, and moral development by surrounding him with favourable environment, using that word in the comprehensive sense in which it has been used in this chapter.

it. Exactly what amount of potency it possesses can at the present moment hardly be stated with confidence; but inasmuch as influences have, in scores of cases, been credited to it that are demonstrably the results of environment, it behoves us to look with suspicion upon explanations that are very likely to be false. *Entia non sunt multiplicanda praeter necessitatem.* Until we are certain that environment, an intelligible and undoubted force, is not responsible in any particular case, we should avoid appealing to an agency whose potency is neither intelligible nor undoubted.'

## CHAPTER V

### THE CAUSES OF SOCIAL DISEASES (CONTINUED)—

#### DEFECTIVE EDUCATION

EDUCATION is a part of our environment, and the consideration of the extent to which defects in it may act as a barrier to social progress belongs strictly to the chapter we have just finished ; but the subject is so important as to deserve separate consideration. There has been a great deal of destructive and ill-informed criticism of the school and all its work. What we need is more of earnest constructive criticism, for all such criticism is in reality co-operation.

In the opinion of many well able to judge, education has not kept pace with the progress of society in other respects. Its absolute motion has been onward, but its relative motion, our critics tell us, has been retrograde. The commonest defects alleged against present-day school education are that it is too formal, too much confined to book instruction, too unpractical, too remote from the necessities of life, and too much regarded as an end in itself instead of a preparation for economic and social life. *Non vitæ sed scholæ discunt.*

The largest factor in the production of the incompetent and the failures in life is the incapacity for doing useful and efficient work. According to the investigations of Charles Booth, B. S. Rowntree, and others, over fifty per cent. of the cases of extreme poverty in our large industrial centres are due to inability to get and keep employment, rather than to sickness or faults of character. Everywhere there are boys and girls growing up with no opportunity in the school or elsewhere for effective training for a vocation, and unenviable indeed is the fate of anyone who falls without practical skill or trade into the pitiless competition of the modern labour market. They swell the ranks of the casual workers living on the verge of poverty. Too often their industrial helplessness saps in course of time their moral fibre, and they fall into the ranks of the unemployables. Such has been the experience of many a promising youth.

We have not yet fully recognised that the educational situation has been fundamentally altered by the industrial revolution consequent upon the discovery of steam power and the application of science to industry. By the change from hand-tools to machines, from manual labour to manufactured power, the home has been shorn of its industries, the small workshops have given place to the factory, with its intricate processes, speeded-up methods, and division and sub-division of labour. The changes have given rise to a great expansion of industry, and

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have heralded the period of world intercourse, world markets, and large-scale methods of production and distribution.

Now the effects of the industrial revolution have not been entirely beneficial to the children. The change from rural and semi-rural to urban life has deprived them of the opportunities for work and play which are essential to their physical and mental development. Home industries no longer give them their manual training and useful occupations for their leisure hours. The change from complete to subdivided labour has deprived apprenticeship of its educational value. Our predecessors were probably not wrong in proceeding upon the theory that the school should provide a general education as a supplement to the training for practical work obtained elsewhere, but we shall be to blame if we continue to follow their example.

In the process of social evolution the time has arrived when the school must undertake the whole educational process, and not one phase of it only as before. It must now both train and teach, both provide the foundation of personal development and rear upon it the superstructure of intellectual attainment. The adjustment of our national system of education to the changed and changing conditions created by the industrial revolution is one of the most difficult and pressing problems before educators at the present time. Much of the present unrest in education is due to the continual

effort of the school so to adjust its methods and curriculum as to enable it to provide a substitute for the educational influences which have ceased to operate, and to supply those forms of practical training which recent changes have caused to be dropped from the life of the young.

That something is wrong at present is indicated by the too large percentage of children who leave school without the ability to pass the tests applied by the Government Department of Education at the end of the compulsory school age. The educational process has broken down in their case, not necessarily because they are dull or careless, but often because the course of instruction has only appealed to a relatively small part of their nature, and has, in consequence, failed to secure their attention and interest. Until recent times the whole of the energy of the school has been devoted to the three R's, and English, Geography, and History, and the consequence has been that even these have not been taught satisfactorily. They must always be the most important subjects in the primary school, but alone they do not satisfy the deepest instincts and interests of childhood—namely, the instinct for doing, the instinct for play, and the instinct for social life.

While the child is yet in the most receptive and plastic period of his life, we must follow more closely the lead of nature, and educate and develop all the powers of the child, especially the active powers. Fifty years ago Carlyle pointed out the

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need of this. 'Our schools,' he said, 'go all upon the vocal hitherto; no clear aim in them but to teach the young creature how he is to speak, to utter himself by tongue and pen; which, supposing him even to have something to utter, as he so very rarely has, is by no means the thing he specially wants in our times. How he is to work, to behave and do, that is the question for him which he seeks the answer of in schools.' Bergson in recent times has expressed the same view. In his work on 'Creative Evolution' he says: 'We think only in order to act. Our intellect has been cast in the mould of action. Speculation is a luxury, while action is a necessity.'<sup>1</sup>

Neglect to train the active powers of childhood has caused in the past many of the failures, misfits, and *non-valeurs* of life. Dr. Snedden, the Commissioner of Education in the State of Massachusetts, has given strong expression to this opinion in these words: 'To the student of social life—the social economist—it is becoming apparent that a large, if not the largest, factor in the production of the vicious and incompetent, the criminal and the pauper, is incapacity to produce effectively, to work productively. The idle boy, the loafer, the untaught youth, the untrained girl—they are destined usually to be a heavy burden to society instead of being bearers

<sup>1</sup> Professor Darroch states with philosophic power the pragmatic position in education in the first two chapters of his work on *Education and the New Utilitarianism*. (Longmans, Green, and Co.) He points out the need of laying greater stress on the practical and constructive arts, and upon co-operative methods in the work of the school.

of burdens.'<sup>1</sup> In the education of delinquents and those who have inherited criminal tendencies we now recognise the necessity of training the physical and industrial capacities as well as the intellectual. Those whom nature leads to destroy are taught to produce. When will the advantage of such training be extended more fully to ordinary school children? It would involve, no doubt, a good deal of re-surveying and re-valuing of the subjects and methods of instruction; but it is worth our while to undertake the task, for it would add vitality to our primary education.

The child should be led to see more clearly than is the case at present the usefulness of the training he is receiving in school. We might supply to him to a greater extent a motive or end for what he is required to do by revealing, say, its place in achievement. It will not do to be always telling the child that he will see the use some day of what he is learning now. The motive is too remote to stimulate his interest or fix his attention. In primary school practice there is too much application of the doubtful doctrine of formal training of the faculties, and there is too much of what Tolstoi called 'the snare of preparation'—ways doing something for the sake of something which the pupil does not yet see. With care and rethought it is possible to make the pupil feel even now the practical utility of the training he is receiving. We need all through the primary school curriculum more education *ad hoc*—that is, education having

<sup>1</sup> *Educational Review*, January 1910, p. 17.



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need of this. 'Our schools,' he said, 'go all upon the vocal hitherto; no clear aim in them but to teach the young creature how he is to speak, to utter himself by tongue and pen; which, supposing him even to have something to utter, as he so very rarely has, is by no means the thing he specially wants in our times. How he is to work, to behave and do, that is the question for him which he seeks the answer of in schools.' Bergson in recent times has expressed the same view. In his work on 'Creative Evolution' he says: 'We think only in order to act. Our intellect has been cast in the mould of action. Speculation is a luxury, while action is a necessity.'<sup>1</sup>

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<sup>1</sup> Professor Darroch states with philosophic power the pragmatic position in education in the first two chapters of his work on *Education and the New Utilitarianism*. (Longmans, Green, and Co.) He points out the need of laying greater stress on the practical and constructive arts, and upon co-operative methods in the work of the school.

of burdens.’<sup>1</sup> In the education of delinquents and those who have inherited criminal tendencies we now recognise the necessity of training the physical and industrial capacities as well as the intellectual. Those whom nature leads to destroy are taught to produce. When will the advantage of such training be extended more fully to ordinary school children? It would involve, no doubt, a good deal of re-surveying and re-valuing of the subjects and methods of instruction; but it is worth our while to undertake the task, for it would add vitality to our primary education.

The child should be led to see more clearly than is the case at present the usefulness of the training he is receiving in school. We might supply to him to a greater extent a motive or end for what he is required to do by revealing, say, its place in achievement. It will not do to be always telling the child that he will see the use some day of what he is learning now. The motive is too remote to stimulate his interest or fix his attention. In primary school practice there is too much application of the doubtful doctrine of formal training of the faculties, and there is too much of what Tolstoi called ‘the snare of preparation’—always doing something for the sake of something which the pupil does not yet see. With care and forethought it is possible to make the pupil feel even now the practical utility of the training he is receiving. We need all through the primary school curriculum more education *ad hoc*—that is, education having

<sup>1</sup> *Educational Review*, January 1910, p. 17.

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a direct bearing upon the activities and purposes of life.

That the school may be an effective means of social progress it must make more of the invaluable human material entrusted to its care. It must regard the pupil less as a product to be turned out according to a stereotyped pattern, and more as a living personality, carrying within him the secret of his own mental and moral growth. The essence of personality is purpose and free activity, and the cultivation of these must be made the starting-point of effective teaching. Guidance, not repression, is the function of education.<sup>1</sup> The latter, we know, may produce a conventional and non-imaginative type of child, but only the former can produce the capable, adaptable, and self-reliant citizen required to meet existing social conditions. We need to cultivate more efficiently the feelings and the will, and the whole moral nature of the child, and we can do this more successfully by guidance and training in the use of active freedom than by any system of external prohibitions.

<sup>1</sup> Mr. Cloudesley Brereton says in the *Fortnightly Review*, June 1913 : ' We have got in many ways radically to change our ideas. Instead of having a sort of regulation education which we fit like a cast-iron boot on to every child of a certain age, we have got first to measure, so to say, the child's foot and then make the boot that it requires. In a word, we have got, first and foremost, to diagnose the child's main aptitude, and then only can we decide what is best for the child ; we must, in fact, first attempt to discover what is his predominant ability and bias, and then, taking carefully into account the time he is likely to remain at school, draw up for him a course of study or direct him towards a course of study that seems to meet the needs of his case.'

Another respect in which our system of public education has certainly retarded social progress has been its almost total neglect, until quite recent times, of the physical well-being of the child. Body and mind are but two aspects of our being. If the mind is worked at the expense of the body, the physical power is lowered, and thereby the intellectual power, for the one reacts upon the other. Similarly, if the physical side of our being is neglected, our mental power is thereby impaired. In order that the race may prosper, the educational system of the country must aim at developing the bodies and minds of the children at the same time and in due proportion.

We recognise now, as we never did before, that the most important resource of the nation is the health of the people, and that consequently the most valuable item in the nation's capital of vitality is the health of the young. The health of the adult community is built upon the physical welfare of the children; therefore the school is our most influential agency for the conservation of national health and working power. Children should through education leave school with fewer physical defects, sounder bodies, keener eyesight, and better hearing than when they entered it. On the contrary, we have abundant evidence that the unavoidable strain of school work is accentuated by the harmful length or sequence of lessons, or by defects in heating, lighting, ventilating, and seating arrangements.

Investigations by the Physical Deterioration

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Committee revealed that 70 per cent. of the children about to leave the Primary Schools in West Ham, and 66 per cent. in Manchester, were below the normal standard of physical development. Sir George Newman, Chief Medical Officer of the Board of Education, states that of the six million pupils in the elementary schools of England and Wales, it is found on investigation that about 10 per cent. suffer from serious defects of vision, 3 to 5 per cent. from defective hearing, 1 to 3 per cent. from suppurating ears, 10 per cent. from adenoids or enlarged tonsils requiring surgical treatment, 20 to 40 per cent. from harmful decay of the teeth, 1 per cent. from tuberculosis, and 1 to 2 per cent. from heart disease. Investigations by Dr. W. Leslie Mackenzie, Medical Member of the Scottish Local Government Board, have revealed a similar state of affairs in Scotland; so that we may take it as proved that all over the country from 50 to 70 per cent. of our school children are suffering from physical degeneration or disease in some form or other. Modern research confirms the truth on every hand that

This mad unthrift world  
Every hour throws life enough away  
To make the deserts kind and hospitable.

When we consider the amount of preventable disease among school children, the effects that inevitably follow in the health of the community in the next generation, and the national burden of sickness and disablement caused by it, we see that we

have here one of the main hindrances to social progress. Doubtless the recently instituted periodical medical inspection of school children, and the provision in necessitous cases of remedial treatment, will have a great effect in conserving the national health and working power, and so will the increased attention now given in the curriculum to physical training. But in addition to these, children must get definite instruction in the laws of health, and, in particular, girls must get better instruction in all household arts. Anyone who knows the conditions in the poorer districts of our cities is appalled at the gross ignorance of mothers there regarding the cooking of the commonest articles of food, and regarding the care of children, and the hygiene of the home. The primary school must certainly pay yet closer attention to this part of its curriculum.

Education will never have the efficiency it should in combating the ills of society so long as children of school age are allowed to engage in exhausting and often demoralising forms of employment out of school hours. The attention of the country was called to this point by a Parliamentary Return in 1899 which showed 'that at least 144,000 or 10 per cent. of the children in full time attendance at school were employed out of school hours for wages,' the majority being engaged in going errands, some in street-trading, others in sweated industries at home, such as flower-making, box-making, and the like. If half-timers had been included in the above Return the

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number of child-workers would have been almost doubled.

Following on the exposures made by this Return, an Inter-Departmental Committee was appointed to investigate the whole matter. The Committee reported that they found themselves 'compelled to offer an unqualified condemnation of the educational effect of the system of partial exemption in both town and country. . . . The bright child becomes mediocre, the average child dull, and the dull child hopeless.' The reasons are not far to seek. Half-time work interferes with the education of the child just at the time when it is most important. Moreover, the double work, in very many cases, imposes a strain greater than his body can bear. The price is paid in lowered bodily and mental vitality, inability to profit to the full extent by schooling, stunted physical development, and impaired health.

As a result of the recommendations of the Inter-Departmental Committee the Employment of Children Act was passed in 1904. The Act forbids the employment between 9 P.M. and 6 A.M. of any child of school age, the employment of any child in work likely to be injurious to his health or education, and of children under eleven in street trading. The Act also gives local authorities powers to make by-laws further restricting the employment of children in their districts, especially in certain occupations common in the districts. Only a small number, however, of the local authorities have as yet made by-laws under the

Act, and there is no doubt that the large number of children still seriously overworked out of school hours, often in unsuitable occupations, is a barrier to social progress. There is a proposal being made in Parliament to supplement the Employment of Children Act by another placing on School Boards the responsibility of licensing boys and girls from fourteen to sixteen years of age wishing to engage in street trading. This is part of a general movement to place the whole of the care of children under the educational rather than the police or other authorities.

The last defect in our educational system we shall mention is the absence of a compulsory and completely organised system of continuation education. A large fraction of our population does not attend a school of any kind after thirteen or fourteen years of age. These children have only got at best the rudiments of an education, and under modern conditions of industry they become derelicts in the lowest grades of work, doomed

To drudge through weary life without the aid  
Of intellectual implements or tools.

Here is no small cause of our social problems.

One of our chief hopes of the progress of society in the future lies in repairing the acknowledged defects of our educational system, and so increasing its power as a lever in raising the sunken and struggling part of our population, who are at once a discredit and a source of weakness to our social order.



## CHAPTER VI

### THE CONDITIONS OF SOCIAL PROGRESS

ONE principle in relation to human progress we hope we have established—namely, that the ills of society cannot be remedied by alleviating individual cases of distress. Moreover, mere external treatment of symptoms is not enough. We must discover the deep-seated causes of the ills, and submit them to suitable treatment. Only thus can we improve the condition of the whole body politic.

#### *Genetic Development*

Herbert Spencer has taught us that society is not a mechanism but a living growth. It is subject to the general laws of development of every organism, and its growth to a more perfect form is taking place by the gradual processes of evolution. In the first place, there is a slow and steady progress of society towards a higher type naturally and without deliberate plan or effort. We may call this genetic or racial development. The factors that cause it are many and often minute. They may be the instinctive groping of

humanity towards a goal unknown, or the desire to excel which is innate in human nature, or the rivalry of competition, the struggle of class with class or nation with nation, or the stress of material necessity, or the struggle against a poor climate, an infertile soil, or an unfavourable location. The influences, indeed, are innumerable, and they call forth a certain amount of thought and effort directed towards an immediate purpose. There is no far-sighted end in view, but nevertheless progress of the race towards higher conceptions of life and thought is made—so slowly, it may be, as to be only perceptible through long stretches of time.

Not only is genetic development slow, it is also highly expensive in proportion to the benefits derived. In the struggle and rivalry by which the progress is achieved much suffering and waste are inevitable. Many become physically and mentally stunted by the hardness of the struggle, and never attain to their real possibilities. Mental energy that was capable of high achievement is expended on a lower level in overcoming material difficulties. There are :—

Hands that the rod of empire might have swayed,  
Or waked to ecstasy the living lyre.

But

Chill penury repressed their noble rage  
And froze the genial current of the soul.

‘ There are some natures so sensitive and refined that their best products become blighted in a keenly

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competitive system, so that the aggressive only survives but not the ethereal and the spiritual. In quietness the divine is born.' <sup>1</sup>

### *Telic Development*

Genetic development is the method of the world of nature, but in human affairs it is to a large extent supplanted by development on a higher plane. Here the blind relentless struggle for existence is replaced by purposive or teleological or, briefly, telic development. As compared with genetic development, it emphasises the moral and spiritual more than the physical side of the world-process; it is a conscious adaptation of social forces for definite purposes, rather than an unconscious drifting towards an unknown goal; it is constructive rather than destructive; it inspires rather than depresses; it substitutes mental co-operation and interdependence on a higher plane for the struggle for existence on a lower plane; it is socialistic rather than individualistic; it is directed towards the general elevation of the standard of life of the whole human family rather than of the stronger and more aggressive members of it.

There are still those who attach less importance to telic development in human progress than to the blind drift of genetic development. They believe that progress has been due mainly to unconscious natural forces, such as the pressure of material needs; and that where conscious psychical forces appear to

<sup>1</sup> Dealey's *Sociology*, p. 178.

have exerted initiative, they have generally been occasioned by physical impulses. But everyone will be ready to admit that conscious effort at least greatly economises the power of unconscious forces, and abbreviates the slow processes of nature. We cannot leave everything to *vis medicatrix naturae*. The fuller study of the modes of social evolution now taking place is causing us to assign greater importance to the power of consciously ordered effort in the progress both of individuals and of peoples. There is every reason to believe, too, that, with the growing self-consciousness of nations, moral and spiritual considerations will more and more outweigh material forces, and that in future the progress of nations will be more and more determined by the capacity they display for the purposive utilisation of their resources.

The chief factors in telic development are social reform, economic reform, and educational reform. The importance of these has been recognised by all the famous utopians from Plato to the present time. The panaceas for social reform put forward by modern humanitarians are bewildering in their number and variety, but they at any rate justify the hope that all this anxiety to lighten the burden of the depressed classes will some day lead to a deeper knowledge of the determining factors in social progress, and will enable us to lay more securely the foundations of a higher civilisation.

The socialistic theories so prevalent at the present time are attempts at a solution of the social problems

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by economics. In their extreme forms they are undoubtedly erroneous and inexpedient, but they are indications among others that the rising tide of telic development will lead, probably at no distant date, to a drastic revision of our economic theories, and a rejection of many of the outworn methods and obsolete data of our political economy. In the economic sphere new achievements in science and invention will cheapen food supplies, and set free a vast amount of energy and capital now wasted. Machinery and labour-saving devices will be multiplied to perform the work now done by unskilled and badly paid labour, and to increase vastly the effectiveness and productive power of the nation. One man with the arts and tools and machinery of to-day can do the work formerly done by fifty or a hundred men; and the people of one of our manufacturing towns have a greater productive power than had the whole of Britain a century ago. The necessities of life have been cheapened by these means, and the whole nation, except the totally submerged class, has been lifted to a higher plane of material comfort and industrial welfare. Wages have been increased, and the length of the working day has been diminished from 15 hours to 12, from 12 to 10, from 10 to 9, and it is probable that the end has not yet been reached.

But the advent of machinery has brought its special dangers. The machine, as some one has said, is apt to make a class of machine citizens, lacking in individuality, narrow in interests, and unable to use

to the best advantage the wider margin of leisure and money which modern conditions allow. Machines have practically abolished the education of apprenticeship. Yet we must have machines, even although we know they will continue to narrow the workman, to diminish his pride of craftsmanship, and in many cases to displace him altogether. But it is not inevitable that an age of machinery should destroy the power of personality, provided the workman has a broad education and intellectual interests beyond his work. Machinery will increase his intervals of leisure in which to widen his mental horizon and develop his higher life.

If we regard the advent of machinery aright we see that it is but an expression of the will of man, enabling him to fulfil his larger destiny and higher purposes. This idea is well expressed by Professor Dealey, a well-known writer on social and political science. 'As man advances in knowledge he learns how more effectively to master nature, to manipulate its resources at will, and to harness for his purposes its energy and productivity. Each forward step implies that men shall henceforth rely less on their own muscular exertions and more on mental capacity. The mechanical, routine drudgery of life is slowly passing away, and in its place is coming a demand for trained intellect utilising machinery. But this implies far greater productivity for the same amount of human energy. . . . As the working day decreases in length, the worker will find himself with

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abundant leisure on his hands, and he also will find pleasure in the arts, in science, and in philosophic meditation. In short, all will become members of the leisured class, for all will have energy and opportunity for the cultivation of the higher life. . . . When unskilled labour and ignorance disappear from civilisation, the social reformer will at last come into his own, and utopians may rest in peace.’<sup>1</sup>

The industrial revolution and the introduction of machinery have placed us at the beginning of a new era. Yesterday was the day of the few; the day of the many is dawning when every man shall have the opportunity of self-realisation which is his by right. Social and economic re-organisation scientifically applied will continue to engage the thought and enlarge the power of the statesman, but the emphasis will be placed more and more on the chief factor in social progress—Education.

<sup>1</sup> Dealey's *Sociology*, p. 181.

## CHAPTER VII

### EDUCATION AS A FACTOR IN SOCIAL PROGRESS—

#### EDUCATION AND HEREDITY

IN previous chapters we have discussed the influence of heredity and environment in social pathology ; what we have to consider now is, given the hereditary merits and faults of man, what can education do to mould them for the good of the race ? In human progress the ethnical, not the individual, is the true point of view. The problem before education is not merely the instruction of individuals but the preservation and elevation of the race. The effects of education do not cease with the individual ; all posterity shares in the social inheritance received by the individual and modified by him for good or ill during his lifetime.

The task of education in this connection has been defined to a large extent by the work of biologists, whose investigations are continually throwing light on the subject of heredity, and on the degree of modification of which it is susceptible. Certain facts have already been definitely established by biology, and can be used by the educationist as he seeks to modify the influences of heredity. Enough is already known



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to show that heredity has freighted the soul and body of each child with the accumulated results of ancestral well- and ill-doing, that education can overcome many of the defects due to inheritance, and that on the right development by education of hereditary acquisitions depends in some measure the progress of civilisation a generation or two hence.

Heredity marks in broad outlines the limits of the capacities of each individual. Some minds have ten talents, others five, and others one, and it is the function of education to enable each type of mind to put its inherited talents to the best use. Education cannot change inborn capacity, but it can discover and develop it. Education, Wordsworth tells us, can

Nourish imagination in her growth,  
And give the mind that apprehensive power  
Whereby she is made quick to recognise  
The moral properties and scope of things.

But it cannot create imagination, it can only stimulate and develop it up to the limit of hereditary endowment. It is waste of effort and resources on the part of education to attempt to create capacities which are denied at birth. It is attempting that which is physiologically as well as psychically impossible. We cannot educate what nature has not put there.

Two mistakes education has made in the past in connection with heredity, and they have cost the nation dear. One we have just referred to—namely, the persistent, some would say presumptuous, attempt

to create capacity. Education cannot add a single cell to the brain. It cannot develop one who is devoid of imagination and manipulative skill into an artist, nor one who is weak in mathematical power into a mathematician. As Ruskin puts it, 'apricot out of currant, great man out of small, did never yet art or effort make.' Sir Francis Galton says: 'I have no patience with the hypothesis occasionally expressed, and often implied, especially in tales written to teach children to be good, that babies are born pretty much alike, and that the sole agencies in creating differences between boy and boy, and man and man, are steady application and moral effort. It is in the most unqualified manner that I object to pretensions of natural equality. The experiences of the nursery, the school, the university, and of professional careers are a chain of proof to the contrary. I acknowledge freely the great power of education and social influences in developing the active powers of the mind, just as I acknowledge the effect of use in developing the muscles of a blacksmith's arm, and no further. Let the blacksmith labour as he will, he will find that there are certain feats beyond his power that are well within the strength of a man of herculean make.'

The other mistake of education has been the attempt to turn out all pupils uniformly developed and rounded off in accordance with some preconceived ideal. Nature has her own order of talent and we must follow that. In the attempt to perform the impossible and develop all alike little progress has

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been made, and in the time thus spent latent talents and potential capacities have been allowed to pass undiscovered or to atrophy by neglect. Dormant or undeveloped capacity is as valueless as no capacity. It is the duty of education to discover and develop native abilities, to enable each one to realise his capacities, to make the most of his inheritance, to give him the will and the power to do and to be the utmost that his inherited potentialities allow. It is thus that education can contribute most to the advancement of civilisation and the progress of society.

The question is sometimes asked whether education should seek to develop the strongest or the weakest points in the hereditary equipment peculiar to each individual. If we were sure that characteristics strengthened or acquired during one's lifetime were transmitted to posterity, we should certainly seek to develop the weakest powers of each individual, and thus tend to produce permanent superiority within the race. The question of the transmission of acquired characteristics will be discussed more fully below, but in the present state of our knowledge we should say that while education should aim at cultivating a general equilibrium of the powers of each individual, it should lay stress on the hereditary capacities which are strongest in the individual, and will enable him to contribute most to the well-being of society. For everyone, even the most depraved and ignoble, has in him, covered over and concealed deep down it may be, some personal quality valuable

to the world—a quality that can only become fully active if developed by education. It is the task of education to arouse dormant heredity, and to give every man the particular training that will enable him to fulfil the purpose in society for which he is endowed.<sup>1</sup>

Conversely, if education should by purposive selection cultivate the good, it should also seek to arrest and check the bad. Unfortunate though it seem, heredity preserves defects as well as excellences, and there is bad—both intellectual and moral—in the best of us as well as good in the worst. By withholding the opportunities that would call forth the bad we must let it die a natural death through lack of exercise.

<sup>1</sup> This subject is fully discussed by Professor H. H. Horne in his work on *Idealism in Education* (Macmillan). At p. 43 of that work he says: 'Where heredity has left us weak we are likely to remain weak, as for example, in common sense, humour, or temperament, despite much effort. It therefore pays in the case of the individual to develop him most in the forte in which he is strongest; this will be his contribution to society. This method is attended with the risk of narrowness, eccentricity, and specialisation, but it accomplishes highest individual achievement and greatest social progress. The risk is to be run, minimised indeed by some attentive effort to the weak points, while the strongest points, however, are receiving the greatest emphasis. The notion of a well-balanced, all-round, harmoniously developed human mind is a fictitious ideal; we are strong in some points and weak in others; our general ability is really an average of varying abilities in different directions. As nature endows us this way, educational effort should be similarly proportioned, giving most time to the strongest points. A genius in a given line may actually be handicapped by being compelled to follow alien interests. Society has many men who can do the things we do poorly; we are fortunate if society has not many men who can do the things we can do best. While the strong points are to be emphasised, the weak points are not to be neglected. And both strong and weak points may need stimuli to awaken them.'

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Harmful tendencies and instincts can be turned by education into useful channels or be weakened, counteracted, or modified by the cultivation of opposing impulses and emotions. This, we take it, is what is meant by getting rid of original sin. The education which accomplishes most is that which works through, rather than against, our native impulses, and which conserves their energy while modifying them into more useful forms.

What we have been suggesting presupposes an intimate knowledge of the hereditary possibilities and limitations of each pupil in a class. We cannot otherwise make the most of the fund of original tendencies each one brings into the world, eradicating what is useless and supplying the additions that are desirable. The child has a claim to be studied and understood by his would-be educators, and the progress of society demands that we should ascertain and develop talent wherever it exists for moral or cultural or practical achievement. It is the power to do this that marks the great and inspiring teacher.

Education can aid progress by recognising and training abilities valuable to social progress. We can only attain the highest collective life through the fullest development of individual life. The better recognition of varying inborn capacities and natures is thus one of the pressing needs of education. The absence of this in the past has too often led to blundering and retardation. Many have complained, and sometimes with justice, of the inappropriateness of the education

they received at school. Education in the future must be made to fit the child and not the child the education. For this we must have smaller classes and individual education ; children have been treated in the mass too long.<sup>1</sup>

In cases in which it is possible, a knowledge of the parents of the child and of the hereditary tendencies of the family will help greatly in diagnosing his capacities and in guiding us as to the best plan of his education. But it would be futile to push our induction too far, for the child's inheritance goes back to the remote past, and there are qualities in him that we cannot trace in either parent. Any individual mind is the product of infinite ages of heredity.

In the same way a study of racial characteristics would be an advantage to every teacher. If we would know the child aright we must study him historically. A knowledge of the evolutionary development of the race in the past is the key to the understanding of the child to-day. If we know the psychology of the race of the child, his little variations from the normal will have more meaning to us.

A question of great interest, though a difficult one, is : Can the influence of education in one generation

<sup>1</sup> Professor Horne in the work we have just mentioned says : ' A child's nature is a seed of life with an immanent design, perhaps a whole flower garden, weeds and all. To educate a child is to comprehend the plan of its soul and to assist this plan towards its full realisation. Study to know then your individual child and use your knowledge. No two souls are precisely alike, not even of twins. Least of all, then, is education the recasting of all souls in the same mould.'

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be handed on to the next ? We do not refer to the material, intellectual, or moral progress of society which results from education. That is part of what we may call our social inheritance which descends from generation to generation as certainly as physical inheritance. Each generation receives through education all the social achievements of the past, its literature, science, art, inventions, and industry, adds to them and passes them on to the next. The influence of social heredity on the development of the race can hardly be over-estimated. But it is a part of our environment, and we need not anticipate the discussion of the next chapter. The question before us at present is rather the very practical one whether the education of the present generation helps to make the education of the future race easier.<sup>1</sup>

The question is really a biological one, for high psychic attainment depends upon the possession of a nervous system delicately organised, and a brain with much grey matter and highly convoluted. One would naturally suppose that centuries of ancestral thinking would be bound to produce an influence on the physical structure of the brain which would be handed on from one generation to another. As Professor Donaldson puts it in his great work on

<sup>1</sup> Plato in his *Republic* refers to the question and answers it in the affirmative. 'Good nurture and education,' he says, 'implant good constitutions, and these good constitutions, taking root in a good education, improve more and more, and this improvement affects the breed in man as in other animals.' Bk. iv. 424.

'The Growth of the Brain': 'We feel . . . that the descendants of several generations of educated ancestors should have a nervous system favourably modified, more vigorous, more responsive, more accurate in its reactions, and growing, perhaps, for a longer time, thus extending the period of its adaptability. But for this evidence must still be sought.' And this is the view of the majority of biologists at the present time. The human brain has developed as the result of countless ages of evolution, but this development is not through inheritance of acquired characteristics, biologists say, but through the preservation of better variations. The effects of the education of each individual are so external to his nervous make-up as to be an acquisition during his lifetime rather than an inheritance, and therefore they have to be acquired afresh by the next generation.

So the question with which we started is a part of the classic one: Can acquired characters be inherited? Philosophers and biologists have been discussing this since the time of Plato, and seem as far from settling it as ever. All are agreed that physical and mental characters which are congenital are transmissible to offspring, but in the make-up of body and mind there are in addition certain characteristics acquired during the lifetime of each individual which he did not inherit, and it is regarding the transmissibility of these acquired traits that there is still considerable doubt and discussion.



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The popular opinion is that they are transmissible, but scientific opinion is much more divided. Darwin, Lamarck, Herbert Spencer, Haeckel, Ribot, and many other prominent biologists, especially in France and America, believe that acquired traits may be transmitted in some measure from parent to child. Spencer leaves no room for doubt. 'Either,' he says, 'there has been inheritance of acquired characters or there has been no evolution.' Ribot in the Preface to his work on 'Psychological Heredity' says: 'In general, accidental deformities and mutilations are not transmitted; we are not surprised that the child of a man with one eye or one arm has two eyes or two arms. Even the transmission of scars is not always established on very sure proof. But, apart from the modifications due to local, partial, or brutal causes there are those which result from slow action, which intimately affect the living organism by nutrition and even by education. The experiences of teachers are not calculated to weaken the belief in a transmission of certain acquired characters.' On the other hand, Weismann, Sir Francis Galton, A. R. Wallace, Karl Pearson, and the majority of biologists deny the possibility of the transmission of modifications acquired during the lifetime of the individual.<sup>1</sup>

<sup>1</sup> After many years of research Weismann in 1892 formed the opinion that the germ cells contain a substance called germ-plasm out of which the new individual is formed, one portion being used up to form the new body cells, the other portion remaining perfectly unchanged to form the new germ-plasm of the germ cells of the individual of the next generation. According to this theory the germ-plasm of the new individual is not derived from the body cells of the parents, nor is it

The vehemence of the biological contention is now abating, for it is found that the facts are not all on one side, and that much of the division of opinion in the past has been due to differences in the meaning attached to the term 'acquired character.' This has been more clearly defined in recent times, and the general opinion among scientists now is that modifications acquired during the lifetime of an individual are not transmissible, with the very doubtful exception of those that influence for good or bad the vital powers of the individual. Hence it is the duty of education to secure that acquired characteristics are re-impressed upon each successive generation if they are good, or are suppressed if they are bad.

The question of the transmissibility of acquired characters is of more than purely academic interest. 'Our decision regarding it,' says Professor J. A. Thomson ('Heredity,' p. 165), 'affects not only our whole theory of organic evolution, but even our everyday conduct. The question should be of interest to the parent, the physician, the teacher, the moralist, and the social reformer—in short, to us all.'

So far as education is concerned some conclusions of importance follow from the discussion in which we have been engaged. For one thing, it has taught

subject to modifications taking place in the body; it is transmitted absolutely unchanged from generation to generation. What the offspring will be depends therefore upon what the germs of the parents are. Inheritance is from germs to germs. These lead an isolated and protected life, and are not affected by traits acquired by education or other means.

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us the need of caution in estimating the relative importance of these two factors in social evolution—heredity and education. Both have their place and their limitations.<sup>1</sup> We cannot accept the view of some that heredity is all-powerful, that inherited ability, temperament, or character cannot be modified by education, that the mathematician, the poet, and the criminal are all alike born, not made, and that the destiny wrapped up in them at birth unfolds itself inevitably during their lifetime. If this were so, the sole business of the educator would be to 'draw out' the inherited 'faculties' and predetermined characteristics of the child committed to his care.<sup>2</sup> In that case there would be little hope of the improvement of the race.

But one vital factor has been overlooked by the supporters of the supremacy of heredity—namely, that man, the highest product of organic evolution, has inherited a plastic, not a rigid, brain endowed, as in the case of the lower animals, with a highly developed

<sup>1</sup> Donaldson, in discussing the relative importance of education and heredity, says: 'Education must fail to produce any fundamental changes in the nervous organisation, but to some extent it can strengthen formed structures by exercise, and in part waken into activity the unorganised remnant of the dormant cells. No amount of cultivation will give good growth where the nerve cells are few and ill-nourished, but careful culture can do much where there are those with strong, inherent impulses toward development. On neurological grounds, therefore, nurture is to be considered of much less importance than nature, and in that sense the capacities that we most admire in persons worthy of remark are certainly inborn rather than made.' (*The Growth of the Brain*, p. 343.)

<sup>2</sup> Dr. F. H. Hayward gives a full and able discussion of this in his *Education and the Heredity Spectre*. (Watts & Co.)

apparatus of fixed instincts. The unique inheritance of mankind is, as Dr. F. H. Hayward has shown, the plasticity, suggestibility, and educability of his brain. Through these qualities the educator can guide the development of the natural capacity of the child, and impart ideas and ideals to him. The plasticity of the human brain makes the influence of education well-nigh omnipotent in moulding-power when compared with heredity. As Hamlet says, 'Use can almost change the stamp of nature.'

Man is partly born and partly made, and his ultimate development depends partly on heredity, but largely on education and training. He inherits his capacity, but his actual attainment, intellectual or moral, depends mainly upon the effort of his own will and the education he receives. We must not confuse inborn characteristics with character. We have hereditary tendencies and characteristics, but not hereditary character—in that fact lies the opportunity of education. Professor Horne states the distinction aptly: 'We inherit certain dispositions, tendencies, inclinations, impulses, temperaments, temptations; we do not inherit our actual attainment, our thoughts, deeds, habits, and the conscious life of man. The son of an inebriate will be weak physically; he does not inherit the appetite for liquor, unless perchance such a craving was already congenital in his ancestry; least of all does he inherit what he will do with such craving. At this point the influence of the third element, the personal

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will, appears. Character is an acquisition, not an inheritance; capacity is an inheritance, not an acquisition. The moral attainments of civilised man are a product of his will, not of his inheritance. Our character is what we become within our inherited limits.' <sup>1</sup>

We should not regret too much our inability to transmit the effects produced in individuals by means of education. It is to the advantage of the race that it should be so. It frustrates, no doubt, the hope that the results of education in the individual may be preserved by heredity for posterity, that the capacity of the race may be improved by the cumulative effect of education from generation to generation, and that the education of the present generation may increase the educability of the brain and nervous system of generations yet to come. It involves, too, a fresh start being made in each individual case, as if our ancestors had received no education. We have to begin the education of each generation at the same point. As Professor Adams wittily puts it, 'Each baby must begin at scratch.' <sup>2</sup>

But there the disadvantage ends, for the non-transmissibility of acquired modifications means that we have in every case the opportunity to determine which characteristics we desire to produce. If moral qualities were innate, not products of education and

<sup>1</sup> *Idealism in Education*, p. 32.

<sup>2</sup> *The Evolution of Educational Theory*, p. 56. (Macmillan & Co.)  
The whole of this book is worthy of study.

environment, if the development of each child depended solely on the virtues and vices he had inherited, if bad characteristics, being congenital, could not be removed, then every dream of human progress would be in vain. Education loses, no doubt, the aid of hereditary virtues, but this is more than compensated by the loss of hereditary vices. The task of the educator would be enormously increased if children coming from bad homes inherited in every case the badness acquired by their parents.

Our study of the relation of education to heredity has shown us that education is one of the most important contrivances of civilisation to enable human beings to advance independently of heredity. This furnishes one more argument for doing everything in our power to improve our means of education in the broadest sense, including every endeavour to develop mankind in the school, in the home, in the workshop, in the nation, and in the world at large.

## CHAPTER VIII

### EDUCATION AND ENVIRONMENT

IN Chapter IV we showed that every organism is dependent for growth—indeed for very existence—upon adaptation to its surroundings. Nature demands that an organism must be adjusted to its environment before it can live alone. Hence every animal has a period of infancy and helplessness that it may be prepared for its environment. In the case of man the period of dependence is much longer than in the case of other animals, because he has to be adjusted to a much more complex physical, social, and spiritual environment. The development of body, mind, and character in man during this period is partly due to the forces of growth from within, and partly to the forces of environment, including education, from without.

The progress of society is made through the reciprocal forces of the environment stamping its influence on the race and the race reacting on the environment, receiving its mental and moral sustenance from it, and striving to conquer all influences in it detrimental to the well-being of its members. If

the adjustment is not made, or if the environment is not suitable for nutrition, growth, and development, then follow many of the pathological conditions of society to which we have drawn attention.

As with the race so with the individual. The success or failure of individuals in life, and the fullness of their self-realisation, are determined largely by their power of adjustment to environment, and of utilising it to draw forth their capacities. It is the province of education to guide the process of adjustment, and to place the young *en rapport* with their environment. Without the assistance of education the child of to-day would have to depend, as his primitive forefather did, upon his own experience, and upon the knocks and bruises of environment for the lessons he learned.

Sometimes the school fails to give the young the kind of preparation demanded by their particular environment. The instruction and methods, for instance, of the schools in our crowded cities give too little scope for nature study, for constructive work, and for healthy recreation—all necessary antidotes to the restricted environment of the town child. Our rural schools copy, in the main, the defects of their town neighbours; they neglect the valuable educational material supplied by, and required for, their surroundings, and so they hasten the drift of the population from country to town, which is giving rise to many of our modern industrial and social problems.

But education has to prepare the child to be able



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to adapt himself not merely to his present but to any future environment in which he may be placed. By suitable prevision education may prevent shock, surprise, and even failure when the youth leaves school and enters the larger arena of the world. Many of our social problems are due to the inability of individuals to adjust themselves to a new or rapidly changing environment. Workers, for instance, trained for a certain industrial environment which changes, may not have sufficient initiative and adaptability to readjust themselves to the new conditions, and they may drop into the ranks of the unfit and the poor.

Our educational system must afford a fuller preparation for the environment of the world, and be more closely related to practical life. This is no new conception. It was the cause of the revolt of the grammar schools in Scotland against the exclusively classical curriculum in vogue a century and a half ago, and of the establishment throughout the country of academies with modern courses of study. It was an important part of the message of Pestalozzi and Froebel to the world, and it has been the inspiring force, consciously or unconsciously, of nearly every large educational movement since their day. It is the cause of much of the educational unrest at the present time, and it is in obedience to it that we are now seriously endeavouring to organise a national system of practical and vocational education.

There is general agreement among educationists,

at least in Britain, that vocational education, in the sense of direct training for the particular lifework or economic environment lying before the pupils, should not be given till the completion of primary school education. The child must be fitted to live in the moral and intellectual surroundings of modern civilisation before being given a special training for his future occupation. To do otherwise would be to interfere with the full development of the child in the name of education.

Nothing could be more harmful to the development of the future worker, and of his ability to live alone in self-dependence, than premature specialisation or vocational training. The proper business of the primary school is to develop potential efficiency and capacity for service which may be used not in one but in any future calling. The three R's, English, Geography, and History should always be, as we have said, the most important subjects in the primary school, but they should be taught in a more practical way than is usually the case at present, and more attention should be given in the primary school to training the body and the active powers of the child, and to social or civic training.

But about the age of twelve a distinct change takes place in the mind of the child, and it should be reflected in the education planned for this period. The child is approaching adolescence, and there is a growing impulse towards the realities of life which, in the children of the working classes, manifests itself in

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a desire to leave school and get to work. Yet the youth is not fit either physically or mentally for the work of life, and it is necessary in the interests of himself and of society that he should continue his education for a year or two longer. During this period, say from twelve to fourteen years of age, the education given should have a more direct bearing on the economic environment of the pupil. The education should be at most only semi-vocational, and should give instruction and practice in the processes fundamental to one of the typical groups of industries for which workers have to be trained—namely, commerce, industry, agriculture, and housekeeping.<sup>1</sup>

The education given after that stage in day and evening continuation schools should be distinctly practical and vocational, giving a knowledge of the materials and the various operations of the industry in which the youth is engaged, an acquaintance with its history and the course of its development, and giving generally a width of training which the workshop practice of the industry is least able to give. This subject will be treated more fully in the next chapter.

To enable man to adjust himself to his environment is, we have said, one of the great tasks of the school.

<sup>1</sup> The Scotch Education Department acted on sound educational principles when it instituted the Supplementary Courses, as they are called—The Commercial, The Industrial, The Agricultural, and The Household Management Courses—for the last two years of pupils who have to leave school to become workers at the age of fourteen. See also p. 110.

But education does much more than this ; it enables man to adjust, in turn, his environment to meet his physical, social, and spiritual needs. Man and his environment are not fixed entities independent of each other ; there is a constant action and reaction taking place between them, and in the process both are moulded and modified. Complete equilibrium between man and his environment is never attained, and if it were progress would cease. It is for this reason that savage races are essentially unprogressive. Their adaptation, we might almost say submission, to their surroundings is little different from that of the lower animal to its physical environment. They are without the divine discontent which changes the environment. But as man rises above the savage state, and as his mind and will become more highly developed by education, he gains a greater power over environment, and an increasing ability to make it minister to his needs. In this way a higher civilisation emerges, and the human race progresses towards the fullness of its development.

Adaptation of mankind to environment makes for social conservation, but adaptation of environment to mankind makes for social progress. In proportion as man through education gains the mastery over environment, and discovers more powerful means of controlling environing conditions in the interests of the race, greater cultural and economic achievements will become possible, and the number of those who live from hand to

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mouth, dependent for sustenance on ceaseless toil, will diminish.

The function of the school is fundamentally to secure the development of the child through supplying such materials as stimulate between him and his environment reactions which are in line with right habits and right ideals. Education prepares the child for his present environment and future surroundings in the world by bringing appropriate stimuli (materials of instruction) to bear upon the brain to train it to successful habits of reaction during its period of growth and plasticity. Method in education consists in providing stimuli well suited to the capacities of the child—stimuli that will awaken interest and produce such response on his part as will secure his proper development. The best teacher is the one who is most skilful in doing these things.

Environmental studies—that is, studies specially designed to prepare the pupil for his environment in the world—should play a large part in education. To prepare man for his physical environment education should give a knowledge of nature as complete as the period of school training will allow. To enable him to adjust himself to his human and social environment, and to become a good citizen, he should be taught the history of his country, and get an accurate conception of its laws, institutions, and national and local government. Whatever else is taught, there should be a wide study of literature. It affords a

knowledge of life and of society which no other study can give. Through it the child can be brought into contact with the best thoughts, ideals, and achievements, which constitute the spiritual environment of the race. Through it he can associate with the great personalities in history, literature, religion, science, and art, and learn the secret of their greatness.

The view of the educative process we have put forward shows that it is not mere instruction and receptivity. Adjustment of the individual to environment and modification of the environment to fit the individual are not accomplished by a mechanical but by a self-active process; they require activity of mind and will. Life in the world is not a matter of contemplation but of action, it is not abstract but concrete, being made up of daily and hourly acts. So with education which gives the preparation for life; it comes through what the child does, not through what he thinks and feels apart from action. Right conduct, or, as we would say, right adjustment to the world, is the end of education.

Educators are apt to forget the truth enunciated by Pestalozzi and Froebel, that self-activity is the prime condition of the development of mind and of the realisation of capacities. Unless every impression conveyed by the teacher leads to self-expression in some form or other by the pupil, the educational process is incomplete. The impression must be wrought by the self-activity of the pupil into the very fibre of his being,

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and not remain simply a matter of consciousness.<sup>1</sup> It is becoming a commonplace of educational precept, if not of practice, that the teacher may teach the child, but the child must educate himself through the active exercise of his body, mind, and will.

Three further thoughts are suggested by our study of education and environment. One is that education is more necessary now than in former generations. More intensive and more scientific methods of production, and quicker and more regular means of transport, are producing changes in our economic and social environment at an unprecedented rate. Education must keep pace with these changes, and lessen the difficulty of readjustment to the changing environment. Society, we believe, is progressing steadily in all these changes towards a goal of good. It is the mission of education to maintain and direct that progress.

Another thought suggested by our present study is the wide scope and numerous agencies of education. Not merely the school, but the whole of the vast environment of man educates him in the broadest sense. As Emerson said, the whole world is required for the education of a human being. There is not a situation in life but leaves its influence on his education. Moreover, every period of life is educative. The few years of school life provide an important but small

<sup>1</sup> James states this with his usual directness: 'An impression which simply flows in at the pupil's eyes or ears, and in no way modifies his active life, is an impression gone to waste. It is physically incomplete. Its motor consequences are what clinch it.'

part of our education. During them we can accomplish only a few of the more definite and formal adjustments to our environment, the other adjustments go on as long as life and impressionability remain.

Finally, since environment plays such an important part, the State should do everything in its power to prevent the lives of the young, at least, being spent in an unfavourable environment. It is this consideration that justifies the State in seeking to create an ideal educational environment in the school, in insisting that the building should be of good, but not expensive, architecture, that it should be on an open site with plenty of light and sunshine, that it should exemplify in its construction every hygienic principle, and that all the furnishings, while simple, should be chosen with as great care for their artistic influence as are the furnishings of a cultured home. It is for this reason, too, that the State insists that the teachers, who constitute the social and spiritual environment of the school, must be in advance of the social and ethical standards of the community.

It is for a similar reason that municipalities and philanthropic individuals should attack and improve the wretched environment of the slums. It is hopeless to expect to exert generally an uplifting influence on dwellers there so long as they live in dirty, squalid surroundings. Because of the misery of their environment, not because of their innate depravity, they supply the larger part of our pauperism, vice, and drunkenness. This goes on in an endless cycle ; as



the parents are, so the children become, and the same sad state of affairs is perpetuated from generation to generation. But it is not enough simply to clear away slum dwellings. If we were to remove the inhabitants of the slums to wholesome dwellings to-morrow, they would soon make slums of them. The disease is mainly a spiritual one, and we must attack it at its source, which is the slum mind. It can be remedied only by better moral and intellectual education, combined with the philanthropic endeavours to which we have just referred.<sup>1</sup>

In so far as the home neglects, or is unable to discharge, its parental and educational functions, we must tend and train the children in crèches and day nurseries and kindergartens till they are of school age. We cannot teach them there the three R's, but we can protect them from the harmful influences of their environment during the daytime at least, we can train them to habits of cleanliness, and we can train them to play, and to love nature. In these and a hundred other ways we can influence the inner life of these children, and help to lay the foundation of good health, good morals, and good citizenship in the years to come.

<sup>1</sup> See *National Education and National Life* (especially chap. v.), by J. E. G. de Montmorency. (Swan, Sonnenschein & Co.)

## CHAPTER IX

### EDUCATION AND PRACTICAL LIFE

AMONG primitive peoples education was entirely practical and informal. It was obtained from the home and the activities centred in it, and from the human and physical environment of life. With rising civilisation and the growth of social institutions—the State, the Church, and the Vocation—the educative forces became more widely distributed, and the sphere of informal education was enlarged. Supplementing and reinforcing one another, these various institutions performed almost the total work of training the young. The idea of formal education given in school was of comparatively late development; moreover the education was given only to the few, and had little bearing on the ordinary activities of life. With the progress of society the older institutions have been weakened as educative agencies, and there has been a steady transference of training from the informal to the formal sphere. The school has been called upon to take the place of the older agencies of practical training that have failed, and not merely to provide a general education

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as a supplement to the training for practical work obtained elsewhere.

If this view be correct, and it can hardly be seriously questioned, we see that the present-day demand for fundamental reform of school work, by the inclusion of practical as well as cultural studies, is inevitable, and is a consequence of the gradual process of social evolution. It is coming from two distinct sources—the pedagogic and the industrial.

Ever since the Renaissance there has been a growing movement in educational theory towards realism, naturalism, and general pragmatism. The mental powers to be cultivated by education are no longer considered to be merely knowing, feeling, and willing. These processes are not now regarded as complete without their expression in action. In every normal child there is a preference of doing to thinking. Educational theory has been slow to realise the importance of this in developing the ideals of duty, self-control, and work. The impressions and ideas conveyed in education are not complete unless they lead to appropriate action; if we stop short of this we cannot ensure positive and lasting results. In skilful teaching, self-expression by the pupils always follows impression. By increased utilisation of the impulse to activity we are now giving greater concreteness to our teaching, we are removing the school from its position of isolation, and we are bringing about a more real and

organic relation between life within and without the school.<sup>1</sup>

Side by side with these influences there have been taking place, especially during the last three or four generations, social and economic changes of vast educational importance. We refer to the changes following on the discovery of steam-power and the application of science to industry. The effects of the industrial revolution on the school were described in a previous chapter (Chapter V). We have had to bring our educational aims into closer harmony with present industrial conditions. As the home and the vocation no longer play the part they did in providing practical education, the school has been called upon to do more now than develop merely the intellectual and moral power of the people. Modern industrial conditions necessitate that the educational foundations of productive as well as intellectual capacity, of ability to do as well as to think, should be laid in the school. Only if this is done can the school play the part of which it is capable in social betterment, and in the alleviation of many of the deplorable consequences of our modern industrial system.

It has been estimated that about fifty per cent. of the working power in this country is wasted or not brought into use. It is possible by suitable education

<sup>1</sup> Tolstoi maintained that the more a people advances the more does true education desert the traditional school for the region of real life outside.

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so to train the intellectual and productive powers of the young as to raise the intelligence and earning power of the people as a whole in the next generation. Consider what this involves. Every advance in the general standard of efficiency lightens the labour of man, yields him a more abundant return for his toil, raises him from a condition of constant struggle for the bare necessities of life to a higher plane of material comfort, and increases his opportunities for leisure and mental, moral, and physical improvement. No better investment can be made by the nation than to give every child the opportunity to secure such an education.

For centuries we have recognised the necessity of a practical training for the professions, and a generation ago the industrial necessities of the country forced the establishment of technical colleges for the training of industrial leaders, but the idea of giving a practical education to the great body of industrial workers is new and is presenting many difficult problems. It necessitates a transition from educational ideals which were known and definite to others which are wider but as yet ill-defined. It involves remodelling to a considerable extent the material, method, and spirit of public education ; it means placing emphasis on thought-processes and ideas that will lead to future achievement ; it means making memorisation and mere taskwork give place to interest and self-control ; it means giving due scope and suitable training to the natural activity of

the child, so that the classroom may become in reality his workshop in which he will acquire habits that will help to give efficiency to his after-life. In educational reform cautious innovations and clear thinking are the need of the moment.

There is general agreement that direct training for the particular lifework lying before the pupils—even if that were known—should not be given till the completion of the primary curriculum at the age of thirteen or fourteen, and that there should be a great increase after that stage in the present opportunities for vocational training. We recognise that a fundamental error has been made in treating the child too much as a psychological rather than a social being.

Nevertheless, nothing could be more shortsighted or more harmful to future development than a prematurely specialised training. Vocational interests should not be allowed to invade the period sacred to the development of child nature. Children have a right to their childhood, and it is our duty to see that they are not robbed of it. We must allow them to grow out of it before we begin to train them for the occupations they may follow through life. If we start too soon we shall train them to grow into machines, not into men and women. But there is a vast difference between training for life and training for a definite calling; one is universal, the other special. The business of the primary school is to prepare for social and intellectual rather than

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industrial life, to develop potential efficiency and capacity for service which may be realised in any future calling.

The difference between vocational and practical teaching must be clearly recognised. It is the latter we are meanwhile advocating. Primary education requires a more practical turn, requires a closer adaptation of its methods to those of nature, to those by which the mind of the race has developed. It needs to give more freedom for the expression of the child's own nature, to give greater scope to his love of activity, to connect all the work of the school with the realities of the child's daily life, and to make fuller use of the various activities and aspects of life that interest him at his particular stage of development. This is what we mean by practical education in the primary school.

The reform required in primary education is not so much a new curriculum as a better realisation of the possibilities of the present one. We need a change in the spirit rather than in the material of education. There should be a better balance between the practical and the intellectual aim of education. The value of knowledge has been overrated in the past, and the great psychological truth that the hands and eyes are the chief avenues to the child-mind has not yet got a sufficient hold in school methods. We need all subjects in the curriculum to be taught in a more concrete and practical way. One of the most baleful features of teaching beyond the infant stage has been

its tendency towards the formal, the abstract, and the bookish. Spelling and reading have been taught too commonly as exercises in conventional forms, geography has been taught as topography, and history as chronology.

Coming from general principles to details, we may say that in primary education four things at least should be aimed at :—

1. Training of the mind.
2. Training of the body.
3. Training of the motor-activities.
4. Training for social and civil life.

Until quite recent times the whole of the energies of the school were devoted to the first division—namely, the three R's, and English, Geography, and History. These subjects are very important, but according to present-day opinion they do not satisfy the deepest instincts and interests of childhood—namely, the instinct for play, the instinct for doing, and the instinct for social life. We have scientific evidence now that concentration on purely intellectual training is a hindrance to the cultivation even of the intellectual powers. It is claimed that in the education of physically defective children most rapid progress is made by giving instruction in the open air, by affording liberal opportunity for play and for motor training, and by devoting but one-half of the total school-time to mental effort. Is it not possible that what is true of the physically defective may be equally true of the physically sound? At any rate, something



## CHAPTER X

### EDUCATION AND PRACTICAL LIFE (CONTINUED)—

#### PRACTICAL TEACHING IN THE PRIMARY SCHOOL

IN the preceding chapter we saw that pragmatism has entered the field of education, and is proclaiming a new message to teachers. It is not necessary to discuss at length the application of that message to the method of teaching all the subjects included in the four divisions of elementary education given on p. 93. Every child when he leaves school should have a command of language, spoken and written, and of numbers—the so-called three R's. These are universal tools necessary in every walk of life, but they should not be prematurely forced upon the child. They will be acquired with ease when the mind demands their use, and in most cases that will not be before the age of seven. They are conventional arts which do not interest young children who cannot appreciate their value for future use. They should be given at first an extraneous interest through stories and games.

The child should get constant oral practice both formally and informally in the use of language,

and in building up his vocabulary. He should get training in saying plainly and directly in spoken and written words whatever he has to say. Every lesson in every subject in the elementary school should also be a lesson in English. Good speech, clear-cut expression, and good legible writing cannot be obtained on other terms, and they should be the possession of every normal child who completes an elementary education. One period a day devoted to the study of grammar and of the English of the school-reader will not give ability to speak and write simple direct English, to read thoughtfully and with expression, and to appreciate good literature. Concentration on masterpieces of literature, and constant attention in all the work of the school to correct and well-defined expression, are the most effective means of studying language in the elementary school.

The teaching of arithmetic, too, requires to be put on a more practical basis, leading to a ready command of numbers, and to ability to think numerically, and to make quickly and accurately calculations involving the four fundamental operations. Children like to deal with real quantities and actual processes. Hence the problems of everyday life and of business, rather than the arithmetic of the school, should be taught. The teacher should rely less upon the text-book, and more upon problems obtained from business men and problems brought by the children from their homes. The catch-problem should be displaced by the problem of everyday importance.

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Repeated and varied practice of this kind in fundamental principles, and practical instruction at a later stage in the general arithmetic of business and industry, and in the forms and papers relating to them, are the work suitable to the elementary school.

Arithmetic in industrial life goes along with practical measurement. Hence pupils should be trained to measure with common instruments, such as the footrule, the tape, the chain, and the calipers ; to weigh by means of the beam and spring balance ; and to find volumes by means of immersion. Practical measurements such as these interest the children, and furnish endless problems for teaching the various operations of arithmetic.

The practical teaching of geography and nature study has been much improved in recent years, and an effort is being made to continue in our junior and senior classes the good start made in the infant classes. As so much has been written in recent years on the teaching of geography, and as the author has already dealt with the subject,<sup>1</sup> he will not add to the literature on it now. The following concise statement by an American writer <sup>2</sup> is suggestive :—

Through contact with the most fundamental problems that have to do with our daily life, the study of geography and man's relation to the earth on which he lives may be made real and meaningful.

<sup>1</sup> Pamphlet on *The Practical Teaching of Geography*, by Alex. Morgan. (London : George Philip & Son.)

<sup>2</sup> Arthur H. Chamberlain in the *Proceedings of the National Education Association of the United States for the Year 1910*, p. 289.

Food, clothing, shelter, transportation—all are such important factors in man's welfare that their study is a ready introduction to the world of geography. Trace the raw food-products through the stages of soil preparation, planting, tending, harvesting, and the various processes of manufacture, transportation, and the like. Consider from beginning to end the stages through which our various articles of clothing pass from the raw material to the most intricate processes of manufacture. Study the growth of the abodes in which we now live through the evolution of cliff, cave, hollow tree-trunk, cabin, to homes constructed of wood or brick, of stone, of iron and steel, until the structures of to-day readily withstand the ravages of fire. View in detail the journey of these materials from the forest, the mine, the mill, the quarry, the kiln, as through one process after another they find their way from distant lands to our own doors.

These things are not studied as ends in themselves so much as means to ends. In no way can a knowledge of physical conditions be so well acquired as through these channels. By taking up the study of wheat from the standpoint of food, or cotton in its relation to clothing, there is a constant working back to climate, soil, location, and all that enters into making of value a knowledge of physical, industrial, and commercial geography. . . .

The study of man's relation to his environment is easily made as interesting as a fairy story. The work of rivers and glaciers, of winds and tides and ocean currents, the cause of deserts, the significance of lakes and seas, of plains and mountains, of valleys and forests—all may be appreciated through rational interpretation. . . .

Through these and similar channels the student is led to see and appreciate his place in society. He

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acquires a fund of real geographical knowledge pertaining to his own and to other countries that can, in his short life in the primary school, be had in no other way.

And of facts, locations, populations, climate, productions, industries, manners and customs, he secures a more intensive understanding than should his entire time be devoted to the ordinary method of fact-gathering.

Just as geography reveals to the child the world of the present, and the sort of world in which he must live and work, so history reveals the world of the past, how mankind has lived and thought and worked in it, and how the race has through its work grown in power, in knowledge, and in liberty. Such instruction is necessary to prepare the child to meet the world, and to play with intelligence and efficiency his part in it. For this purpose school history must give less attention to wars and rumours of wars, and more to the achievements of men who, by their heroism and their great intellectual and moral power, have improved the social, material, and moral conditions of the nation.

Much of the content of history is beyond the understanding of children, and to give concreteness to the teaching it should begin with the study of current events, and of local and industrial history. The study of the development and perfection of means of transit by land and sea which have vastly increased our commerce, and of the invention of labour-saving machines which have

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revolutionised our industries, and are playing so important a part in social progress, should be a prominent part of the teaching of history at every stage. This will arouse more interest, will give more real culture, and will bring the child nearer to the sources of the wonderful growth of our country than will any amount of instruction regarding the nation's wars or monarchical succession. In the practical teaching of history the acting of historical scenes with suitable but inexpensive dresses, weapons, &c., should always form an important part.

Physical education includes everything connected with the care of the body, so that it may be made healthy and fit for the service of the mind and for the performance of duty in the world. Mental retardation and moral weakness, generally attributed to causes beyond our reach, are often due to physical causes which may be removed or alleviated by suitable education. Physical education means more than training the body. It includes instruction in the laws of health and sanitation as affecting ourselves and society, in the value of simple well-prepared food, and in the importance of temperance and regularity in all our daily habits.

We have not yet realised the educational importance of free play and organised play or games in addition to formal gymnastics, and the necessity of abundance of room for physical activity both inside and outside the school. We have not grasped the full educational significance of Groos' statement :

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'Animals do not play because they are young, they are young in order that they may play.' We have not had the courage yet to clear the floors of the classrooms of the rows of fixed desks. But there is an influence at work remodelling our ideas of the nature and requirements of physical education. This new spirit is manifesting itself in medical inspection, school clinics, school nurses, school dentists, school dinners and the many other schemes for making the best use of the few short years of compulsory education to give the children, especially of the poor, the opportunity, which is their due, of leading healthy and efficient lives.

There is one branch of primary education that has been subject to more than the usual amount of misconception and erroneous treatment. We refer to the various forms of educational handwork—drawing, clay-modelling, woodwork, metalwork, sewing, &c. Many teachers and others are still at sea regarding the fundamental ideas underlying hand-and-eye training. They see in it only a form of industrial work and a preparation for trade training. Most emphatically its aim is not vocational but liberal education, not the premature production of tradesmen or factory hands, but the training of more efficient men and women, who will be better instruments of social service through the cultivation of powers which would otherwise lie dormant.

The true motive for the introduction of manual activities into education lies in the nature of the child-

mind. The active instinct in childhood is as strong as the play instinct. A child prefers doing to thinking, seeing and handling things to hearing or reading about them. He loves tools, and loves to be doing things with them. Education must follow nature, and utilise at every stage the motor impulses and interests which are the inheritance of the race.

Much greater stress should be laid on the practical and constructive arts in the work of the primary school. Instead of getting an hour or an hour and a half a week in the infant and supplementary classes, they should get that amount of time each day through the entire period of elementary education.<sup>1</sup> It is wrong even for physiological reasons to postpone manual training till elementary education is complete; that is, till the age of twelve or thirteen. If the fine co-ordinations of the muscles of the hand and fingers, wrist and arm, are not secured before that age, there will be great difficulty in securing them at a later age.

Even the so-called purely intellectual part of education derives benefit from manual work. A Committee of the Unionist Parliamentary Party have been investigating the matter, and they say: 'The local authorities that have developed it (hand-work), as have several during the last few years, are

<sup>1</sup> See *Report of the Consultative Committee of the Board of Education on Attendance at Continuation Schools*, p. 53 (Cd. 4757. Published by His Majesty's Stationery Office). A further Report (Cd. 6849) deals very fully with the whole question of Educational Handwork, especially as a necessary part of secondary education.



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realising its good effect. The Committee, therefore, recommend that manual instruction be essential to every day-school. It must not be regarded as a special subject; the mere provision of a few classes is not enough. It must be the very life of the school.'<sup>1</sup> Dewey makes manual work the starting-point and centre of education, and he is not wrong. It should be correlated in every way possible with the general work of the school. In that way the instruction in that work will be made more interesting, more concrete, and more lasting.

After all, whether a subject is cultural or practical depends largely upon the spirit in which it is taught. Manual training should be taught by trained teachers thoroughly qualified on the technical side. Moreover, it should not be left entirely to visiting teachers, nor should it be given only in a special workroom. There is a great deal of manual work that could be done in the ordinary classroom,<sup>2</sup> especially if the fixed parallel rows of desks were done away with. Then would handwork take its rightful place in education, not so

<sup>1</sup> *The Schools and Social Reform*, p. 15. (London: John Murray.) Dr. Henry H. Belfield, of Chicago, in making a report to the United States Department of Labour came to a similar conclusion. He said that evidence collected in America and England showed that pupils who get manual training as a part of their school work in the regular school hours accomplish as much academic work as pupils who devote all the school time to the latter. The facts, he says, justify the conclusion that from one to two hours per day, according to the age of the pupils and the character of the work, should be given to the manual side of education.

<sup>2</sup> See *Modern Views on Education*, by Thiselton Mark, p. 143. (London: Collins.)

much as a new subject but as a new method entering into and reforming and vitalising the teaching of all subjects.

More rapid progress would have been made by the new ideas had educational handwork not fallen under the baleful influence of faulty teaching. Even into its concrete processes there has entered a narrow formalism. It has been taught on an exercise basis rather than on a productive basis. By means of a cast-iron progression of tool exercises, and a pedantic sequence of models, it has been taught just as formally as arithmetic or reading or spelling. Children are not interested in whittling and sawing and planing, and making of joints or stitches, and other manipulative exercises according to rule. Doing something for which they experience no present need, simply because it will be useful in some future operation, is not sound method, is not parallel to life's training, and is not the way in which the race learnt its industries. Mr. Thiselton Mark puts his finger unerringly on the defect : ' At present,' he says, ' too much of the time spent in woodwork by the boy between twelve and fourteen is consumed in making useless miniature representations of objects rather than objects of use. A model that works, such as boys of this age sometimes make, is a different matter. A good balance, a signal with levers, a model of a crane, rank with objects of use. But with respect to the making of miniature objects, merely to incorporate certain "exercises," many woodwork instructors of to-day

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are saying : " A model is an invention of the Evil One." ' ' <sup>1</sup>

We must devise our handwork courses so that at every stage the children will have real problems to face, will have to a large extent actual things to make arising out of their everyday needs and interests, will have something to do or to make which they recognise as definitely useful for themselves, or for their homes, or for the school or school system.<sup>2</sup> Let us not be too much afraid of doing work in school useful for others : in this lies the germ of the idea of social service. After all, the real test is not whether the work is utilitarian or non-utilitarian, but whether it is essentially educative in character and spirit. Let us break away from the artificially graded exercises in manual training, and the making of decorative knick-knacks, and let us give the pupils some introduction to the practical utility of their handiwork. Let us pass, in short, from the disciplinary conception of the sloyd exercises to the practical conception of the arts and crafts, and in so doing we shall shift the emphasis from the disciplinary value of the exercise to the concrete value of the work in carrying out the constructive idea of the child.

<sup>1</sup> *Modern Views on Education*, p. 123.

<sup>2</sup> In some towns in the United States 10 per cent. of the pupils' manual training time is devoted to the production of school equipment, not for the sake of economy, but to give the test of economic value to the work, to give an opportunity for co-operative effort, and to enforce the lesson of efficient utilisation of time and materials.

## CHAPTER XI

### EDUCATION AND PRACTICAL LIFE (CONTINUED)—

#### PRE TRADE EDUCATION

WE have not dealt as yet with the last two years of elementary school life—namely, from twelve to fourteen years of age. This is a difficult period in education. A distinct change takes place in the mind and nature of the child as he approaches adolescence. Life is beginning to grip him. The development of the social impulses which takes place about this time manifests itself in a greater interest in the social life and the activities of the outside world. Even newspaper records of current events begin to interest him. The toy play which pleased his childish fancy no longer satisfies, and it gives place to interest in organised play and group games. The growing impulse towards adult activities and the realities of life leads to a desire to leave school and get to work. Besides, the elementary curriculum proper, aiming at developing the whole nature of the child, is fairly well completed by this time, and parents and children alike often feel that the last two years of compulsory school-life are not profitably spent.

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And yet the child is not fit either physically or mentally for the work of life, and it is absolutely necessary, in the interests of himself and of society, that the child should continue at school for a year or two longer.

The difficulty is to devise an education giving, as Carlyle said, 'a training in practicality,' adapted to the special needs of children who may be expected to constitute in due time the rank and file of the industrial army. In response to the waking work-impulse education must provide forms of practical training which the children can see will be of use to them in after-life. The education given should be semi-vocational, and should connect itself not only with life but with livelihood; the life-career motive will interest the pupils, although it cannot be brought into play with full effect for a year or two yet. During this period liberal education should be continued, but the practical training should no longer be merely incidental or subordinate to it. Our aims at this stage are to train—first, the efficient producer; second, the intelligent citizen; and third, the educated man and woman capable of appreciating the ideal things of life. These aims settle the elements of the education appropriate to this period: first, the practical; second, the civic; third, the cultural.

In the last-mentioned category the study of the masterpieces of literature should predominate. Other subjects of a general character, such as arithmetic, should be put on a purely practical basis, and in the

history instruction the study of current events, and of local history, and of the history of the evolution of industry, should play a large part.

In the second category the instruction in civics should have as its aim to give the pupils a sympathetic knowledge, political and industrial, of their own city, country, and national government, so that the outcome may be an intelligent comprehension of the duties of citizenship and of the obligations of social service.

In the first category the practical education of the child between twelve and fourteen years of age should not be vocational in the sense of training for efficiency in a particular calling. The child is not ready either mentally or physically for this. Moreover, it would presuppose, and probably restrict, the choice of a life-calling before the interests and talents of the child were fully known. The training should be at most semi-vocational, and should give instruction and general skill in the processes fundamental to the more or less universal occupations, and also a knowledge of the general facts of economic and industrial life, and of the possibilities and necessities of the various crafts and their relations to one another.

Such a training would give a general understanding of the methods, possibilities, and social significance of modern industry, and it would impart a meaning and a motive to the work of the school. A certain measure of preparation for some future vocation would undoubtedly follow, although the vocational aim would never be dominant. The training

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would help to discover the tastes and aptitudes of the pupils for certain kinds of work, it would thus give much needed assistance in the wise choice of a calling, and it would lay a suitable foundation for that calling whatever it might be.

It is fortunate that the adoption of a uniform course of practical education for all elementary school pupils entering adolescence is not essential, for the arrangement of such a course, even if it were desirable, would be beset by great difficulties. If we could analyse the multitude of trades and occupations of our highly civilised life and discover the processes fundamental to them all, then these processes might be made the staple of the practical education for this period of childhood. There are sufficient points of similarity, however, in the materials, processes, and products of the occupations of mankind to warrant us in arranging them in five fundamental groups :—

1. The agricultural.
2. The industrial.
3. The commercial.
4. The household.
5. The professional.

We may omit the last from our consideration as it does not belong to the elementary school stage; but pupils who have to leave school at the age of fourteen should have during their last two years at school the opportunity of getting a practical course of education along the lines of one or other of the first four groups according to their tastes, or their probable future vocations,

or the prevailing vocations of the locality. At least half the school-day should be devoted to the course selected, the rest of the day being devoted to the intellectual and civic instruction already mentioned.

A choice between the above occupational courses would only be possible in schools with a sufficient number of pupils, and there is much to be said for establishing in populous areas separate schools for children from twelve to fourteen years of age, as has been done in Edinburgh and other cities.

Scotland has led the way in providing suitable courses of practical training supplementary to the prior general education given to pupils under twelve years of age. Since 1903 the Scotch Education Department has given special grants for children between twelve and fourteen years of age getting instruction in Supplementary Courses, the nature of which is outlined in the Code of Regulations for Day Schools.<sup>1</sup>

The Department through its inspectors sanctions the granting of merit certificates to pupils who are fourteen years of age, and who have completed satisfactorily one of the Supplementary Courses of instruction. But even fourteen is too early for a child to enter upon his lifework, although the law cannot compel him to remain longer at school. The doors of the more skilled and desirable industries are closed to him.

<sup>1</sup> See the Sixth Schedule of the Code of Regulations for Day Schools (Cd. 5562. Published by His Majesty's Stationery Office). The outline of the courses there given should be carefully studied by all interested in practical education.



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Hence the Scotch Education Department in its Code for 1914 has offered, very wisely we think, an additional grant to schools that are able to get a fair proportion of the pupils in the Supplementary Courses to remain for three years instead of two—that is, to fifteen years of age instead of fourteen. It is to be hoped, in the interest both of the child and of society, that fifteen will soon become the normal minimum age for leaving school.

Every year the schools of the country send out thousands of children of thirteen or fourteen years of age to join the ranks of wage-earners.<sup>1</sup> But the duty of the school and of the nation does not end there. It is not sufficient to have given these boys and girls a proper training for a calling. If we stop there all the thought, the skill, and the money which have been spent upon their education may be lost. There is no more critical period in the lives of children than when they leave school and have to face for the first time the bewildering complexity of modern industrial and commercial life. It is a striking fact that the more the economic life of a country is developed the greater are the risks of disaster and shipwreck to its youth. The difficulty of taking the right step and the disastrous consequences of taking the wrong one were never so great as they are to-day. The recent Royal Commission on the Poor Laws, the Reports of the Consultative Committee of the Board of Education, and

<sup>1</sup> In Edinburgh, for instance, 4500 children leave the Elementary Schools each year.

of Commissions on Industrial Education in Canada, and in Massachusetts, all emphasise this. They point to the paramount necessity of supplying reliable information and guidance, to those about to leave school, regarding the conditions of promising and permanent employment suited to their capabilities and bent, and regarding overstocked or declining industries, and occupations that never lead to a man's work.

For want of such guidance the choice of work has been left in the past to all sorts of chance circumstances, and children have been allowed simply to drift into employment. Evidence submitted to the Inter-Departmental Committee on Physical Deterioration in 1904 showed that about forty per cent. of the boys who leave school in the poorer districts of London go in this way into casual employment. From lack of definite purpose, pupils from schools all over the country are going into unskilled occupations, highly paid it may be, but teaching nothing, leading nowhere, and offering no hope of advancement. The increasing use of machinery and the growing specialisation of industrial work have enormously increased the demand for unskilled labour. Modern industry and commerce are riddled with blind alleys, and after years wasted in them, youths on the threshold of manhood find themselves no nearer to permanent desirable lifework. Without a definite trade, and with intelligence undeveloped by reason of the menial and more or less automatic work in which they have been engaged, they fall in many cases into the ranks

of the casual labourer, the unemployed, or even the unemployable.<sup>1</sup>

The evil results of the absence of proper training and guidance to children about to leave school may show themselves in other ways. The children may enter occupations for which they are not adapted, and in which they will never become efficient workers. Misfits occur in nearly every vocation, and they are a fruitful source of economic loss and personal suffering. Want of efficiency means poor workmanship, lack of promotion, and uncertain employment; and those who find themselves in this unfortunate position often break down early under the strain of work for which they are not suited. More frequently, perhaps, they drift at an early stage from one position to another, and this means for many youths deterioration, demoralisation, and sooner or later unemployment.

If we require conclusive evidence of the consequences of the unguided and aimless entrance into

<sup>1</sup> Mr. Meyer Bloomfield, in commenting on the evidence collected by the Royal Commission on the Poor Law, says:

‘Unanimous testimony on this point by the special investigators of the Royal Commission has led to the opinion that this perhaps is the most serious of all the problems encountered in its study of unemployment. A term of sinister import has been coined to describe the products of this vocational anarchy—the Unemployables.

‘The unemployables are people whom no ordinary employer would willingly employ, not necessarily because of their physical or mental incapacity, but because their economic backbone has been broken. The wasted years have landed their innocent victims on economic quicksands. Attractive wages with no training, the illegitimate use of youthful energy, long hours of monotonous and uneducative work, have produced at his majority a young man often precocious in evil and stunted in his vocational possibilities.’ *The Vocational Guidance of Youth*, p. 19. (Houghton Mifflin Co.)

work through the ever open door of unskilled and dead-end occupations, we have only to turn to some of the evidence submitted to the Royal Commission on Poor Laws. The startling fact is there shown that about twenty-eight per cent. of the unemployed are young people between twenty and thirty years of age. If we are to deal successfully with this problem of the unemployed, if we are to provide something more than palliatives for the human waste that it represents, the first step will be to see that every child gets a practical training of a definite kind before leaving school at fourteen, that he gets guidance and assistance in selecting suitable life work, and that he is not allowed at this stage to break off entirely his education. Vocational guidance, in short, is a necessary part of a thoroughgoing system of practical and industrial education.

If from such considerations we conclude that vocational guidance is necessary, the question is, To whom does the duty of giving it belong ? Doubtless, it belongs to the parent in the first instance, and if he were always in a position to discharge it the matter might be left there. But the wise choice of an occupation is so important to society as well as to the individual, and the conditions of modern industry are so complex, that the parent himself generally requires information and assistance in the task. He cannot be expected to have in most instances a sufficiently intimate knowledge of the training, powers, limitations, and bent of the child, of the precise nature of the

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work in each of the important vocations, and the preparation required for and the opportunities offered by it.

There has for some time been discussion as to which public authority should give the assistance required—the Board of Trade through its Labour Exchanges, or the Local Educational Authority. In placing children in suitable employment, it is certainly necessary to have a knowledge of the adult as well as the juvenile labour market, and this information the Board of Trade possesses. But it does not know the temperament, capacity, and previous training of the child, and, as this knowledge is essential, the school appears to be the logical starting-point for vocational guidance. It seems necessary, accordingly, to extend the scope of the national school system to include some oversight of the vocational adjustment of those it has trained at such expense. In Scotland this has already been done by the Education Act of 1908, which empowers School Boards to institute employment bureaux and, in the words of the Act, 'to combine with other bodies to maintain any agency for collecting and distributing information as to employments open to children on leaving school.'

The first local authority to put this clause of the Act into force was the School Board of Edinburgh, which, after a conference with representatives of the Chamber of Commerce and the various trade organisations in the city, instituted an Educational Information and Employment Bureau. As it was, so far as

we know, the first Bureau of the kind in this country, it may be interesting to state its constitution and functions as passed by the School Board on July 20, 1908 :—

1. The Bureau shall be placed under the charge of a Standing Committee of the Board to be called the Educational Information and Employment Bureau Committee, and to consist of seven members of the School Board.

2. There shall be associated with the Committee, an Advisory Council, consisting of the Members of the School Board and such representatives of public bodies and trade associations as the Board may from time to time co-opt, due regard being had to securing representation of the principal trades of women's occupations.

3. The Advisory Council, as representing the various trades and occupations related to the Bureau, shall advise the Committee and the Director of the Bureau on all matters connected with the education required for such trades and occupations, and on the conditions of employment.

4. Accommodation for the Bureau shall be found in the School Board Offices.

5. The School Board shall appoint a Director who, subject to the Committee, shall organise and superintend the Bureau. Generally his duties shall be as follows :—

(a) To interview boys and girls and their parents or guardians, and advise them with regard to further educational courses and most suitable occupations.

(b) To prepare leaflets and pamphlets or tabulated matter giving information to the scholars about continuation work.

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- (c) To keep in touch with the general requirements of employers, and revise from time to time the statistics about employment.
- (d) To prepare and revise periodically statements of the trades and industries of the district, with rates of wages and conditions of employment.
- (e) To keep a record of vacancies intimated by employers, and to arrange for suitable candidates having an opportunity of applying for such vacancies.
- (f) To report periodically on the work of the Bureau.

The Director of the Bureau will also act as the organiser for the Continuation Classes.

NOTE.—As soon as the Committee and the Director have been appointed, notice should be sent to all head masters, employers, &c., explaining the purposes of the Bureau and the conditions for utilising its services. Head masters should be provided with printed forms to be given to the outgoing scholars, on which shall be entered the standard of education attained, habits of punctuality and attendance, and any general information that would be useful; and a duplicate shall be sent to the Bureau. The Bureau shall be open free of charge to parents and pupils wishing information as to education or employment.

Prior to Edinburgh the city of Boston, Massachusetts, had a well-organised system of vocational guidance, and everyone interested in the subject should read the valuable little monograph, to which we have frequently referred, on 'The Vocational Guidance of Youth,' by Meyer Bloomfield, Director of the Vocation Bureau of Boston.

In the case of smaller school boards it is not possible or necessary to form such a complete organisation as exists in the cities we have mentioned. But in every case either the head of the school, or some teacher to whom he delegates the duty, should act as vocational adviser for that school. This teacher should be relieved from other duties for a certain length of time each week in order to have an opportunity of interviewing pupils, conferring with parents and employers, and keeping records of the pupils who leave, and of the requirements from time to time of the industries in the district.

Vocational guidance is one of the important phases of the modern broader conception of the scope and purpose of national education. It is an essential part of the movement to make the school a more effective instrument of social progress. It does not mean prescribing a calling, but it means organising all available means of information so that parents may know the kind of work their children leaving school are best fitted by nature and education to do well. Vocational guidance will lead to greater industrial efficiency, to increased welfare of the masses, and to the amelioration of conditions that help to produce the dependent and delinquent classes. Moreover, it will help to build up the ideal of service, of lifework as a mission, of a calling followed by deliberate choice, adapted to inclination and capacity, and engaged in heartily and not with a feeling of drudgery.

In addition to the direct benefits of vocational



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guidance certain valuable indirect results will follow from it. For one thing, it will give rise to a large amount of practical information regarding the various trades and callings, and the qualities and preparation required for them, that cannot fail to be of great service to the world. But more important still, the closer co-operation it involves between the school and the world of work 'will lead to the enriching of school life with vocational purpose.' These things will increase the demand for more and better continuation and trade education, and will give an added interest to school work which will have something concrete and definite in view. This will tend to hold the children longer at school, and parents will generally be willing to keep them at school if it is seen that doing so will be a subsequent advantage to the children in their life work.

Practical education and vocational guidance involve a considerable enlargement in the responsibility and function of the teacher. It is no longer his aim merely to teach according to a rigid curriculum, and to make the members of his class as uniform as possible so that they may fit into the requirements of school life. He has to train them for the infinitely varied demands of the world. He has to discover the qualities of each pupil in order that, in the words of Professor John Adams, 'he may make the best use of the educand's *naturel* while at school, and may make the best recommendation for his life work when he leaves it. Even at the

present moment, and under our rigid conditions as to curricula, the teacher is often applied to for advice regarding the best line of work for the pupil's future. But, in point of fact, the teacher has very little opportunity of learning what the pupil is fit for in other than scholastic subjects. Under the newer conditions he will become practically a specialist in diagnosing the best kind of life work for individual pupils. This does not mean that all schools are to become vocational. Indeed, this newer view rather marks off the teacher as essentially a pre-vocational trainer. He has to find out the possibilities of the educand, and give a training that will have a bias in favour of the future life work for which the educand is specially fitted.'<sup>1</sup>

If vocational guidance is to be worth anything, it must be individual in character. We must consider one child at a time, and this involves that there must be considerable reduction in the number of pupils generally assigned at the present time to the care of each teacher.

<sup>1</sup> *The Evolution of Educational Theory*, p. 362.

## CHAPTER XII

### FURTHER EDUCATION

THE most significant movement in the educational world to-day is the one concerned with the care of youths between fourteen and eighteen years of age who have left school and gone to work. It is recognised that a fundamental weakness in our present school system is that it allows compulsory education to terminate at thirteen or fourteen years of age. The aims of public education—a trained mind, a well-formed character, capacity for citizenship and for some work useful to the community—cannot be attained during the short space of eight or nine years of the compulsory school period.

Not until an efficient system of continuation schools is organised will compulsory elementary education give an adequate return for the large expenditure it requires. Every year we spend in Britain £30,000,000 of public money on primary education, on the ground that it is necessary for the safety of the State and the perpetuation of our free institutions. A large part of this money is wasted if we cease to exercise any care for the

further education and training of the child after he leaves the elementary school. And this is what we are doing at the present day in the case of three-fourths of the youths of the country. We are employing nearly the whole of the energy of our national education in partially training the children of the country, and then we allow them in large measure to waste.

According to statistics collected by the Consultative Committee of the Board of Education in 1909, about a million and a half of boys and girls between fourteen and seventeen years of age in England and Wales receive no further education and preparation for their life work than that which the primary school has afforded them. Their mental development is arrested, and a large part of what they have previously learned in school is quickly forgotten. Their natures are, as yet, far from their full scope and development; their characters and mental and physical powers are immature and only partially trained for the duties of life. As Friedrich Paulsen very well says: 'The education provided for our youth may be compared to an abandoned ruin; the foundation is laid, a few walls are constructed, then the work is left to the destruction of wind and water.'<sup>1</sup> As a nation we are wasting our people more than we are wasting anything else. The waste of our material resources,

<sup>1</sup> Quoted by Edwin G. Cooley, *Proceedings for 1912 of the National Education Association of the United States*, p. 1207.

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as we have just pointed out, is a serious matter, but the waste of our human resources is a much more serious one, for no nation can prosper, as compared with other nations, except by the better conservation and development of the productive capacity of its people.

With the increased demands on workers at the present day, the necessity for further education than the primary school can afford is becoming more and more urgent. The school has to do almost single-handed, as we have shown, what was previously done by a number of institutions, and moreover it has to do it better than in any previous age. The demands on the adaptability, intellectual power, and practical capacity of the workers are greater now than ever they were before. Those whose education and training cease at fourteen years of age are in every danger nowadays of becoming failures in life, or at least of being relegated to only the lowest grades of work.

The close of the primary school course is probably the most critical period in the life of the young. They are approaching adolescence—the most malleable and formative period of their lives. New interests and impulses are arising within them, and their leaning to social and practical life is increasing. Their characters and habits are far from formed, and are still plastic for good or ill. It is uncertain as yet whether they will become loafers and weaklings in life, or interested, intelligent, and efficient

citizens. Everything depends upon the use made of the period from thirteen or fourteen to eighteen years of age for mental, moral, and practical training. Much of the training which would have been premature before fourteen years of age, on account of immaturity, can be undertaken now.

Under present arrangements in this country compulsory education ends just at the time when its continuance is most required. This was pointed out by the Inter-Departmental Committee on Physical Deterioration. In their Report they state: "Education in the ordinary sense of the word is over just when in its full significance it becomes most necessary, when parental direction is almost entirely absent, and in lieu of it very little supervision is exercised from any other quarter over physical or moral development.' The serious educational, moral, and even economic, waste resulting from this neglect was pointed out with great emphasis by the Consultative Committee of the Board of Education. At page 16 of Volume I of their exhaustive Report on Continuation Schools they state: 'The Committee find that at the most critical period in their lives a very large majority of the boys and girls in England and Wales are left without any sufficient guidance and care. This neglect results in great waste of early promise, in injury to character, in the lessening of industrial efficiency, and in the lowering of ideals of personal and civic duty.'

We may say, then, that on all hands there is

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now a consensus of opinion that the most pressing educational problem at the present time is the education of adolescents. The difficulty is to decide what practical steps should be taken in dealing with it. Generally speaking, one or other of two courses might be followed. We might extend the period of compulsory schooling for two or three years beyond the present limit, or we might build upon the elementary school a complete system of part-time continuation classes carrying forward the general and practical education of those who must leave school at fourteen, and making it more helpful for the successful discharge of their various duties in life. This would really be a form of secondary education for the masses of the people.

The first would doubtless be the ideal solution, but it must, we fear, be dismissed as impracticable at the present time. The burden upon working-class parents would be increased beyond what they could bear without substantial State assistance. Also, the difficulty of making the change from school environment to life conditions would be greater even than now. Moreover, psychological investigation has shown that the great majority of boys and girls at fourteen years of age, in all grades of society, are ready for vocational training provided it is accompanied by suitable forms of education. But the first, the financial difficulty, is the only serious one, and if it were overcome the others could be arranged.

The second course—namely, the development of a system of continuation education—is the more practicable plan, and it is the one that has been applied in Scotland, Germany, Austria, Denmark, and Switzerland. Germany has organised her continuation schools more completely and successfully than any other country in the world. Her reply to the problems raised by the industrial revolution was the development of her continuation and trade schools. Her reward has been a marked increase in the productive power and material prosperity of her people, and an unprecedented development of her trade and industries.

When evening continuation schools were started in this country they limited their scope almost entirely to instruction in English, arithmetic, and other school studies, their aim indeed being simply to continue the education of the elementary schools. The studies were abstract and bookish, no attention was paid to the trades of the pupils, and there was no bond of union between the schools and the workshops. It is no wonder that with these imperfections the evening schools of twenty or thirty years ago were attended by only a small number of the youths of the working classes. Experience, particularly that of the German people, has shown that we should relinquish the old traditions out of which the evening schools arose as places for the repetition of elementary school work, and develop continuation education as an independent school system requiring the same



liberal financial support, and the same care in organisation and staffing as the primary schools.

If continuation education would succeed it must get away from studies which are solely 'cultural,' and place the emphasis on the forms of training which have to do with mastery of some definite activity, career, or vocation. General education, especially instruction in literature, should always be given, but it should be closely related to the practical studies. The one should reinforce and give content to the other. The drawing, mathematics, science, and other subjects should be taught practically, and in such a way as to supply the deficiencies in the workshops' training, and to enlist the interest of the pupils.

Continuation teaching should never be a generalised affair, but a definite attempt to supplement and round out the training in some occupation in accordance with the needs of advanced modern industrial practice. This necessitates that, wherever possible, separate classes should be formed for the various trades and occupations in the district—including domestic work and agriculture—for in this way only is it possible to adapt the course of training to the needs of the individual pupils.

But even under the most favourable circumstances, the continuation school can never give a complete trade training; that must be obtained in the actual pursuit of the calling. The aims in view in continuation education are rather to emphasise those parts of the training which the industry itself is least

able to give, to keep pace with the period of apprenticeship, making it thorough and many-sided, and especially to counteract the narrowing effect and poverty of ideas which result from the extreme specialisation of modern industry. The worker is no longer a craftsman in the old sense of the word—a master of all the processes involved in the production of the finished work. Hence he requires instruction in general principles, and a knowledge of the materials employed, and of the various processes and successive stages in the manufacture and distribution of the articles produced. The aim throughout is to cultivate simultaneously knowledge and skill, and to develop the industrial intelligence, originality, and adaptability of the pupil.<sup>1</sup>

The continuation pupil is at a stage at which we must train him to be not only a good workman but a good and loyal citizen, able to play worthily his part as a member of society and of the State. An essential part of continuation education therefore is civic instruction. A suitable starting-point is the pupil's trade or occupation. The more we are able to base civic instruction on personal experience the more successful it will be. The history of his trade, the course of its development, and its position

<sup>1</sup> The whole subject is dealt with in a complete manner in the *Report of the Consultative Committee of the Board of Education on Attendance at Continuation Schools*, and in the volume on *Continuation Schools in England and Elsewhere*, by Michael E. Sadler. One of the most suggestive documents dealing with continuation education is the *Scotch Education Department's Code of Regulations for Continuation Classes*.

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in the industries of his own country and of the world should be discussed. He should learn something of the efforts and struggles of workers in other industries, and of the interdependence of interests of all members of the community. By these means he should be led, before he reaches his political majority, to recognise his duty towards his fellow workmen and his employer, and his family and social duties. He should learn how the present-day problems of his town and the nation arose; and the outcome of it all should be a clear recognition of his responsibilities, duties, and rights as an individual in the State.

But it is not only the intelligence, character, and practical powers of the pupil that are still largely untrained when he leaves the elementary school. His physical powers also are undeveloped. Hence suitable forms of physical training and games, and instruction in the laws of health (including first-aid help) should take a prominent place in all continuation school work.

There should always be a true bond of union between the continuation school and the workshop. There should be co-operation between those who regard continuation teaching from the educational side and those who, through practical experience, regard it rather from the economic and industrial side. The many problems involved in continuation education are not solely pedagogic, and unless we bring to bear upon them the best opinion of the great employing class and of the great class of skilled

employees they cannot receive their best solution. Hence while continuation schools, as an integral part of our educational system, should be conducted by the public and at the public expense, the curricula and other practical details of the school work should be submitted to consultative and advisory bodies consisting of representatives of employers and employees in the industries of the district, as well as of the teachers and the local educational authorities.

This is the plan that has been adopted in London, Edinburgh, Munich, and some other cities, and it is to this effective co-operation that the marked success of the Continuation School system in these centres is in large measure due. In Edinburgh, for example, the School Board has instituted about twenty Advisory Committees, one for each group of industries in the district, such as printing, engineering, building construction, &c. Each Committee visits once a year the appropriate groups of classes, and also helps in planning suitable courses of instruction, and in delimiting the spheres of action of the school and the workshop.

It deserves consideration whether, in the towns in which these Committees have been formed, public opinion is not ripe enough to extend their scope by utilising them, along with the employment bureaux recommended in the preceding chapter, to furnish information regarding the conditions and prospects of the various industries, and to help pupils to find situations for which they are suited. In this way the Committees would probably help to prevent the

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hardship and industrial waste arising from the overcrowding of some trades and the scarcity of workers in others.

A difficulty in connection with continuation schools is the supply of teachers. At present these schools in this country are staffed mainly by primary school teachers, with a certain amount of assistance from skilled artisans and talented business men and women. This is probably the best arrangement that can be made so long as the classes only meet for an hour or two in the evening on two or three nights a week. The ordinary school teachers employed, however, should be selected because of their fitness to teach adolescents on a practical basis ; and, to do full justice to themselves and to their work, they should be allowed a corresponding amount of relief from their day-school teaching.

Expert artisan teachers have many advantages. They bring the air of the occupation into the school, the processes they teach are the actual processes of the up-to-date workshop, and they illuminate their teaching by reference to practical details. If practical experts of this kind are employed, it is highly desirable that they should be given, through co-operation with the local authority for training teachers, instruction in educational methods, and at least a short course of supervised practice in teaching.<sup>1</sup> The tendency, however, is to make con-

<sup>1</sup> Every new untrained teacher employed in Continuation Classes in Edinburgh is required to take, under the Edinburgh Provincial

tinuation school teaching a separate career, demanding special preparation and training. This is very marked in Prussia and other parts of Germany, and the practice will spread rapidly in this country as more and more of the classes meet in the daytime.

Committee for the Training of Teachers, a course of training which includes :—

1. Six lectures on General Methods in Teaching.
2. Four Demonstration Lessons with discussion of the methods employed.
3. Ten hours of supervised practice in teaching Continuation Classes.
4. Regular visits during ordinary classwork from the Master of Method.
5. Specially arranged visits of the Master of Method accompanied by an expert who has proved himself a competent teacher in the relative subject.

This enlightened policy of the Edinburgh School Board has had a most gratifying effect on the teaching in the continuation classes.

## CHAPTER XIII

### FURTHER EDUCATION (CONTINUED)

THE conviction is rapidly growing that voluntary attendance at continuation schools meeting chiefly in the evening no longer suffices for the educational requirements of modern States. Every year we are getting a clearer perception of the nature and extent of the mischief that is being wrought by the present system of *laissez faire*. A large proportion of the adolescent boys and girls throughout the country will never be touched by a voluntary system, and these are the very ones who need the education most. Keen and capable youths attend, but the reckless and unskilled never go, and the unemployable, the hooligan, and the apache are the outcome.

In some manufacturing cities in England the number of possible pupils attending continuation classes is as low as 1 in 25, and in even the more progressive educationally it is only about 1 in 7. No city in the country has been more successful with its voluntary continuation schools than Edinburgh, and even there out of about 17,000 youths between fourteen and seventeen years of age 5500

are receiving no form of education, and probably never can be reached by voluntary methods. In face of these figures, and many others that could be quoted, those interested in the educational welfare of the country see that some system of compulsion is necessary. This involves no new principle. The State which claims control over the child up to thirteen or fourteen years of age cannot stop there. It must recognise its duty to guard from waste for some years longer what it has been at such trouble and expense to train.

There are, we know, many difficulties in the way of compulsory continuation education—some educational and administrative, others economic. We have yet to learn much regarding the character of the instruction most suitable for many industries. If we make attendance at continuation classes obligatory on all children leaving the elementary school, we shall have to reconsider the whole question of staffing and accommodation. Reforms will be necessary in the conditions of employment during adolescence, for it would be cruel to force youths tired after their day's work to attend schools in the evening. Various economic problems will be raised by the partial withdrawal of this large body of juvenile work from the labour market.

But, above all, the movement for continuation education is retarded by the absence of a strong public opinion in favour of compulsion. Only the few who have studied the matter are definitely in favour of change, the many are apathetic or even



antagonistic. They are not convinced that the cost involved to the ratepayers, and the sacrifice to the parents, the youths, and their employers, would be a good investment. They point to what they consider the doubtful returns from our compulsory primary education, without seeing that it is to a large extent the incompleteness of that system which leads to the waste of public money and to the unconvincing results.

In this state of public opinion everything possible should be done to arouse public interest in continuation classes, and to spread information regarding them. We can help meanwhile to popularise the classes by suiting the instruction and the times of meeting to the needs, and even the convenience, of the young people, and of the employers in the various industries in the district. Day-school teachers can help by advising all pupils who are leaving them to enrol in continuation classes. Much useful propaganda work can be done, by means of meetings and distribution of circulars, to point out the nature and value of the work done in continuation classes. The Consultative and Advisory Committees we have referred to can do much to help on the Continuation Class movement.

But while doing everything possible to meet reasonable difficulties and to educate public opinion, it should be realised that we cannot continue in these days of keen international rivalry to dally with the problem of compulsory continuation education. It is a matter of national safety to settle it without

much further delay. On the way to a universal compulsory system there is the system of local option. Statutory power might be given to the Local Educational Authorities to make by-laws for compelling attendance at continuation classes up to an age fixed by the by-laws. This is the method that has proved so successful in Germany, and has been in operation in Scotland since 1908. Since the foundation of the Germanic Empire the different States composing it have had the power to make attendance at continuation schools compulsory, and to require employers to grant the necessary time. In twelve of the States every apprentice has to attend a continuation school for from six to eleven hours a week during the whole period of his apprenticeship, or until the completion of his eighteenth year, and his certificate as a journeyman is only granted if he has satisfied the necessary educational tests. In ten of the States there is 'local option' regarding continuation school attendance, and in only four States is attendance voluntary.

Section 10 of the Education (Scotland) Act, 1908, requires every School Board to make provision for continuation classes with reference to the crafts and industries—including agriculture and domestic arts—practised in the district. The same section also gives each School Board power to make by-laws, if they so decide, compelling the attendance at these classes of such young persons between fourteen and seventeen years of age as are not otherwise

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receiving suitable education. A penalty is imposed upon anyone who employs a young person at times when he or she is required by the local by-law to attend the continuation class, or employs him or her for such a length of time as exceeds in any one day or week the period of employment permitted for the young person by any Act of Parliament.

Sufficient time has not elapsed to enable a final opinion to be formed of the Scottish system. As yet only eighteen School Boards out of about nine hundred have adopted it, but it should be added that the largest School Board in Scotland (Glasgow) is one of the eighteen. Complaints are already being made that districts, which have been enterprising enough to make attendance compulsory, are being placed at an apparent disadvantage as compared with their industrial rivals in adjoining districts that have not adopted the compulsory system. This may be a shortsighted view, but there is no doubt that less temporary inconvenience and dislocation of industry would be caused were the compulsory system universal. Doubtless after a time employers will see that attendance at continuation classes increases the value of the services of their workers. Should the local option plan fail, local authorities will be able to make with more confidence an appeal to Parliament to make obligatory attendance at continuation schools universal.

The general adoption of the compulsory method would be a reform of great magnitude and of far-

reaching consequences, not only to the young people concerned but to the country at large. The increased productive power and the physical well-being of the people would, within a generation, be out of all proportion to the increased cost to the nation. As Thorndike very well says, 'The community that insists on protecting the young against being used up in helping the community to get a living, soon finds itself getting a better living, and other things of much more worth.'<sup>1</sup>

There is at the present time a great waste of teaching power, and consequently financial waste, in connection with continuation education, because the instruction is given almost entirely in the evenings, when neither the pupils nor the teachers are capable of their best work. Only pupils of more than average physical and intellectual strength are able to undergo such a strain without injury at this critical period in their growth. Everyone who has considered the question agrees that along with compulsion should go a reasonable part-time system of work at occupations and part-time attendance at day continuation classes.<sup>2</sup>

<sup>1</sup> *Education*, by E. L. Thorndike, p. 238. (Macmillan.)

<sup>2</sup> Scotland already has the nucleus of a Day Continuation School System in the Supplementary Classes referred to on p. 111. The Supplementary Schools in Edinburgh, for example, have accommodation suitable for the practical instruction of apprentices in twenty trades. In Germany evening classes are being gradually dropped, and in some cities by-laws have been passed forbidding them for youths under eighteen. J. E. G. de Montmorency in *The Schools of the Nation*, p. 40, says: 'It may be a heresy, but for my part I am inclined to believe that in a really perfectly organised scheme of national education there should be no evening schools, though there should be every facility for study in the provision of lectures, reading rooms, and technical lending libraries.'

The chief obstacle to this reform in the past has been the fear that it might interfere unduly with the exigencies of trade and commerce. Experience has shown that the fear is to a large extent groundless. Many public-spirited and enlightened employers of labour in the chief manufacturing centres throughout the country—in London, Liverpool, Birmingham, Manchester, York, Sheffield, Bradford, Leicester, &c.—have voluntarily sent their young employees to day classes. Almost without exception they have come to the conclusion that they get work better in quality and relatively greater in quantity, and they have given effect to this view by the payment in many instances of the class fees and full wages.

In arranging the times of the day classes for a certain trade every consideration should be given by the educational authorities to the convenience of the employers in that industry, and if the industry has a periodically recurring dull season the instruction might be given chiefly during that time.

Compulsory day continuation classes should play an important part in solving the apprenticeship problem. In the days of small workshops the master gave his apprentice an all-round knowledge of his trade, and at the same time trained his mind and character. Modern conditions of industry render that impossible. The educational opportunities of the factory and workshop nowadays are almost nil, and the system of apprenticeship will break down utterly unless it is reconstructed on a broader basis.

The young worker must get in future a large part of his training elsewhere than in the workshops, and for this purpose the continuation school will be indispensable. By dovetailing suitable continuation education and training into workshop practice, it will be possible to produce workers endowed with the practical skill and the alertness and adaptability of mind necessary to meet successfully the demands of the new industrial conditions.

In some cases the day continuation schools have developed into trade schools, in the restricted sense of that term—namely, schools in which young persons are taught from the foundation all the departments of work in a certain trade or skilled occupation, including the use of all the hand and machine tools required for the processes involved. In these schools the whole or a portion of the apprenticeship is passed. The class rooms are like workshops, and the work is carried on in a manner as nearly as possible similar to actual shop conditions. The greatest development of trade education has taken place in France, Switzerland, and Germany. In Munich alone, under the leadership of Dr. Kerschensteiner, there are complete courses for sixty-seven trades, and in Berlin for over two hundred and twenty. Such schools are still in an experimental stage in this country. In Scotland they are practically nonexistent. In England there are about thirty, and in Ireland about a dozen.

But it is doubtful if trade schools, in the strict

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sense, will ever be numerous on account of the great diversity of trades, the almost infinite specialisation of modern industry, and the large cost of equipment, materials, maintenance, and instruction in them, in proportion to the number of students who can be instructed. Moreover, it is very questionable whether the trade school can ever be made a complete substitute for apprenticeship. It is impossible for the school to reproduce the conditions and the experience of the workshop or the office. These and other difficulties will always limit the development of trade schools for all except a few special crafts and industries. For all other cases a well-developed Day Continuation School System for the various trades, with a thorough mutual understanding as to the part of the training to be done by the school and workshop respectively, should meet all the educational and economic wants of the country.

Although we have been advocating so far the necessity of adequate facilities in continuation schools for the education of youths up to seventeen or eighteen years of age, yet we are of opinion that there should be no upper age limit in our continuation school system. It must provide for adults as well as adolescents, for those of all ages who, through ambition or love of learning, desire to drink more deeply at the wells of knowledge. Education should not cease when we begin to be men and women. Hence in connection with our continuation school system

there should be voluntary evening classes for those who desire to continue their general or practical education by studying after their day's work. These classes would provide purely advanced and extension teaching, regardless of the requirements of the too definitely prescribed schemes of study by which so many parts of our educational system are needlessly bound and enshrouded.

We have been dealing as yet with the practical education of the skilled artisan and the rank and file of industrial workers. It is at least equally essential for our national well-being to train experts in the various fields of industry and commerce, and to carry on the scientific education of youths of promise in the hope that they may become leaders in their respective fields. For social progress we need, as John Stuart Mill said, 'a perpetual succession of superior minds by whom knowledge is advanced, and the community urged forward in civilisation.'<sup>1</sup>

Hence at the apex of our national system of practical education we require technical colleges, colleges of arts and crafts, colleges of domestic science, and colleges of agriculture—all closely co-ordinated with the continuation schools, and giving the highest instruction in the technique and scientific methods of the industries in the communities in which they are situated. One of the oldest technical colleges in Europe is the School for Watchmaking

<sup>1</sup> *Principles of Political Economy*, Bk. V, chap. xi, §8.



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in Geneva, and we know that to-day the Swiss are the most perfect watchmakers in the world. Germany has six or seven thousand college-trained chemists in her industries, and until the recent war she led the world in chemical dyes, pigments for artists, and coloured inks for printing processes.

In order to build up new industries or to revive old ones, continental nations institute technical schools for the industries. In this country we have not done so. Our technical colleges, which are to all intents and purposes our artisan universities, have suffered generally from insufficient nutrition—material and personal. They have been hampered through lack of financial support and lack of suitable pupils, especially day pupils, from local industries. The vast majority, indeed, of employers have been totally indifferent to them.

We must encourage, too, a thoroughgoing system of industrial research in the laboratories of our technical colleges and universities. As Mr. J. A. Pease, President of the Board of Education, said in the House of Commons in May 1915, 'We must bring our universities and technical institutions into closer connection with industry, and also our leaders of industry into closer connection with skilled workers.' Action, he said, should be taken at once for this purpose, and he recommended the appointment of an Advisory Council on Industrial Research, consisting of scientific experts along with leaders of industry.

Many movements have been set on foot from time to time to bring higher liberal education within the reach of the working classes. The University Extension Movement had this object in view, but it has proved a comparative failure because it was imposed upon workpeople by the Universities from above, instead of being organised and managed by the workers themselves. This fundamental error has been remedied in the Tutorial Classes promoted by the Workers' Educational Association. The aim of this Association is to interest the workers in higher education by supplying information regarding facilities for such education, and by providing facilities when they do not exist. The most important work done by the Association in this direction is the institution of University Tutorial Classes.<sup>1</sup> The idea of the movement is not to give advanced instruction of a kind directly useful in the vocations, but to provide university education to workers who remain workers all their lives. The aim is intellectual and spiritual energy, not material success, not to enable workers to become something else than what they are.

The movement has spread with extraordinary rapidity. During the session 1913-14, for instance, thirteen Universities in England and Wales conducted in all 142 classes, which were attended by over 3500 students drawn from almost every occupation, but

<sup>1</sup> See *University Tutorial Classes*, by A. Mansbridge. (Longmans, Green, and Co.)

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mostly manual workers. No University has done more to further the movement than Oxford University. The University Tutorial Classes are managed by Joint Committees consisting of equal numbers of University representatives and of representatives of the Workers' Educational Association. In every case the tutors are appointed by the Universities, and they are always persons of high university standing.

The subjects studied are chosen by the class in consultation with the tutor, and they generally have a more or less direct bearing upon the great problems of life. Courses have been selected in this way from the following: Economics, Economic History, Literature, General History, Political Science, Philosophy, Psychology, and Biology. No class is allowed to exceed thirty in number, and each member must agree to attend regularly once a week for twenty-four weeks during each of three successive winters, and to undertake to be regular in writing essays bearing upon the subject of the course. Each meeting of a class lasts for two hours, the first of which is devoted normally to a lecture, and the second to questions and discussion by the students. A high standard of work is generally reached, and we are informed on the authority of the English Board of Education that in the classes 'there are students whose essays compare favourably with the best academic work.'

The work done by the Tutorial Classes shows that the higher education of the manual workers is no impracticable chimera. The Classes are spreading

the love of pure learning among the working people, are bringing within their reach many of the best advantages of university education, and are thus enabling them to perform more worthily their part as members of the family, society, and state.

## CHAPTER XIV

### CHILDREN UNDER SCHOOL AGE

By the passing of the Education Act of 1870 children over five years of age were practically compelled to attend school, but school attendance under this age was encouraged by the payment of liberal grants—six shillings for each child under four, and eight shillings for each one over that age. The result was that when the next great Education Act was passed—that of 1902—there were in the public elementary schools of England and Wales nearly six hundred thousand children between three and five (or about a third of all the children of that age in the country) and two or three thousand even under three years of age. According to the official view as expressed in the Reports of School Inspectors, these children were from the first to be ‘instructed suitably to their age,’ for, even at the best, their school-life would be so short, and they would so soon have to enter the labour market, that ‘it could not be considered wise to postpone reading, writing, and simple arithmetic too late.’

But gradually doubts arose in the public mind as

to the wisdom of submitting children under five to school instruction, or indeed of having them in the ordinary elementary school at all. The matter was investigated by the Board of Education first by five of its Women Inspectors, and afterwards by its Consultative Committee.<sup>1</sup> The Reports of these experts, published in 1905 and 1908 respectively, came to practically the same conclusions—that the formal education of a child should not be seriously commenced before the age of six or seven, that in dealing with babies under five there should be no hard-and-fast time-table or curriculum, that set lessons in reading, writing, and arithmetic should not be given, that there should be ample facilities for play and games and easy access to the school garden or playground, and that suitable provision should be made for the children sleeping when tired.

A good home is, on social, hygienic, and educational grounds, the best school for a child until he is five years of age.<sup>2</sup> But unfortunately many homes have not the necessary means or accommodation for the nurture and training of young children, and if the children are left entirely to the care of the home they may in many cases, as we have shown in previous chapters, be handicapped for life physically, mentally,

<sup>1</sup> *The Report of the Consultative Committee upon the School Attendance of Children below the Age of Five* (Cd. 4259. Published by His Majesty's Stationery Office) should be read, as it contains a full and adequate statement of all aspects of the subject.

<sup>2</sup> Since 1905 the Board of Education has made it optional to Local Educational Authorities to refuse admission to their schools of children under five years of age.

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and even morally, before they reach ordinary school age. Or the mothers may have to be absent from home during the day to go to work, and may have to leave their children, for whom they are toiling, untended either indoors or in the streets.

Such cases cannot under any social arrangements be entirely avoided, and it seems but fair to the children themselves, and to the interests of the community at large, that some public provision should be made for their care and training. If wisely done this will strengthen, not weaken, the influence of home life. If the children are given a better chance now of growing up to be useful citizens, this will lead in course of time to a steady diminution in the number of homes in which children cannot enjoy the inestimable blessing of proper parental training, and will be a powerful means of improving our imperfect social conditions. We must always keep in mind that our ultimate aim is to make all homes such as to be able to discharge satisfactorily their natural duty of fostering, at every stage, the development of the children in them.

Let us consider at the outset the provision made at the present time for children whose upbringing is neglected from any of the causes we have mentioned ; we shall then be in a better position to decide whether it is advisable or necessary to improve or supplement the present arrangements.

Among the manifestations of the quickened social conscience of the present day are the many efforts made

for the care of children under compulsory school age in the poor districts of our large towns. The means taken for their care are mainly of three kinds—day nurseries or crèches, kindergartens, and babies' classes in the public elementary schools.

Day nurseries originated in France about seventy years ago, and in 1913 there were no fewer than 110 of them in Paris and its suburbs, and over 320 in other parts of the country. From there they have spread into Belgium, Switzerland, and Germany. They have never secured a very firm footing here, and at the present time there are only about eighty day nurseries in this country, the great majority—fifty-five—being in London. In Edinburgh there are four, supported by voluntary subscriptions and managed by a number of medical doctors and other citizens who have formed themselves into the Edinburgh Day Nurseries Association. The routine of day nurseries is somewhat as follows: They are open daily (except Sunday) from about 6.30 A.M. to 6.30 P.M. They receive children from two or three weeks to five years old, and a charge of about 3*d.* or 4*d.* per day is generally made for each child. The children are washed when admitted in the morning and dressed in the nursery clothes for the day. A doctor visits the day nursery frequently, and everything possible is done by attention to cleanliness, feeding, rest, and play to secure the development of the children.

Next come kindergartens for children from three to five years of age. They are as a rule conducted in



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this country by private persons or societies. They not only take care for several hours a day of children from necessitous homes, or children whose mothers are at work, but they also attend to the cleanliness of the children, to their physical growth by means of a midday meal followed by sleep, and to their moral and mental education through occupations, games, and plays, more or less in accordance with Froebel's principles. The chief objects and aims to be kept in view in work of this kind in a slum district have been stated to be :—

1. To see that the children are clean and adequately fed, and to train them in habits of cleanliness.
2. To occupy them indoors and out of doors in a manner suited to their childish years, thus adding to their happiness, intelligence, and usefulness during childhood and in after-life.
3. To aid the progress of morality, order, and freedom through the general influence of the kindergarten.
4. To obtain the goodwill and co-operation of the parents, to acquaint them with the laws of human growth and development, and to help them to realise and fulfil their responsibilities with regard to their children.

The former and present students of the Edinburgh Provincial College for the Training of Teachers support a College Mission in the form of a free kindergarten in a poor district in the neighbourhood of the College.

Miss Ethel Marriott, who was in charge of the kindergarten during the first two and a half years of its existence, has given the following outline of the daily routine, which may be taken as more or less typical of that in other institutions of the kind :—

‘The children arrive, often escorted by an elder brother or sister, at or soon after 9.15 A.M. Each is armed with a small lunch “piece” with his name written on the wrapper, and on Monday mornings brings his overall, towel, and pillow-case washed by the mother at the week-end. After putting away their “pieces” in a basket, the children hang up their outdoor things on pegs easily recognisable to them by a special brightly coloured picture, and put on overalls.

‘Brushing of teeth comes next on the programme; and then the children go into the schoolroom where each is given a “job”—that is, a piece of work for which he is responsible and which is done not for himself alone but for the welfare of all. There is much to be done to make the “wee schule” as bright and beautiful as possible. There are flowers to arrange, pets to be cared for, brasses to be polished, the piano to be dusted, milk to fetch. The children have a high standard. “I like to see the pinanny [piano] *real* clean” said one mite of four as she rubbed away at the keys with her red duster. Left to themselves the

children arrange flowers beautifully, and take a great pride and joy in their work. Then follow morning song and the register, and then any pennies brought are put into the children's contribution box—a much beloved china cat. Many halfpennies which would otherwise be spent at the “sweety shop” are brought to “Pussy” instead, and then comes in due time the delight of spending the savings at the toyshop.

‘After some vigorous marching, running, drilling, the children settle down to an occupation. These occupations are usually centred round some natural object of which the children have already some experience. For instance, if “horse” is the centre chosen, the children go out to see the horses working on the roads; they visit a stable; and watch the neighbouring blacksmith shoeing a horse. And then after these experiences, in simple materials such as bricks, sand, clay, &c., and through stories, songs, and games, they represent their ideas, and so deepen the impressions gained.

‘At 10.30 A.M. two monitors (children) set the lunch tables, and we all sit down together to a meal of milk and bread. A special point is made of this, because, unless on Sundays at dinner-time, these children never sit down to a family meal. Too often at home they are given a “piece” and ordered out of doors.

While the monitors clear away and wash up the mugs and plates, the others have games or free play with toys, in the garden whenever possible. Unconsciously, in all this work, the children are forming habits of orderliness; and in working together and in the sharing of toys, &c., are learning something of the joy and responsibilities of citizenship.

‘At noon they go home, returning again at 1.15 P.M., when boots are taken off, and the children go to bed and sleep for an hour. The beds are specially made of strong netting stretched across wooden frames which fold up to be put away, and can be easily disinfected. There is no doubt of the benefit of the afternoon sleep to the children who, in their overcrowded homes, are generally put late to bed, and even then do not sleep under really hygienic conditions. In time, the mothers come to realise the importance of this midday rest.

‘We encourage mothers to come about the kindergarten to watch the children at work and play, to come to evening meetings when they take turns in helping with the teas, to send small contributions, and to help with sewing and washing. Gradually as the aims of the kindergarten come to be realised, the mothers make greater efforts for the children, and marked improvement in cleanliness, regularity, and punctuality is the result.’

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Experience has shown that the kindergarten is one of the most successful educational agencies for reaching the home and uplifting its ideals. It tends to make the parents take a keener interest in the care and development of their children. It gives the children a chance of becoming robust and vigorous in body and mind, and of becoming in due time useful citizens. The free kindergartens in the slums have done good by the emphasis they lay on the humanising, socialising, and nurturing element in education. They have pointed the way in which the community's efforts may best be directed to save the child of the slums from almost inevitable social failure ; and they have been the starting-point of other philanthropic endeavours to deal effectively with the problems of the slums through playgrounds, social settlements, visiting nurses, &c.

As kindergartens have been founded chiefly by private societies, there are no general statistics to be had as to the total number of poor children provided for in this way in Britain as a whole, but they form a very small fraction indeed of those who stand in sore need of such aid. In London there are only seven or eight kindergartens. In Scotland there are in all at present seven—five in Edinburgh, one in Glasgow, and one in Dundee. It must be remembered, too, that, to do its work effectively, and to retain its family-like influence, a kindergarten can accommodate only about twenty children.

In many of the public elementary schools in England

and Wales there are babies' classes formed for children between three and five years of age, and government grants are paid for them. In Scotland, on the other hand, there are hardly any children under five in the elementary schools—probably because of the comparatively small number of women who go out to work there, and of the higher standard of home life resulting from this. But even there it is felt that more should be done for the children under compulsory school age, especially in the poorer quarters of the large towns.

In the best schools babies' classes are not put under the same discipline and formal instruction in the three R's as the older pupils, and the work done contains many of the good features of the kindergarten. There can be no doubt of the value of these classes to babies who otherwise would be left day by day mainly to the influences and hardships of the street. But the classes are not generally as clear in their educational aim as the kindergarten, their furniture is not so suitable, nor do they have, like it, accommodation for sleeping when the babies are tired. The playground, too, of the babies' class is in nearly every case the same as that of the older pupils, and there is no garden with flower plots and sand heaps and playing spaces in which the babies may work and play and sleep in the open air on most days of the year. In short, the babies' room of the elementary school tends to be too much of a school and too little of a nursery to meet the needs of the neglected slum child.

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But all these attempts, creditable though they be, to deal with the child problem are insufficient to prevent the lamentable waste of child life and child character going on throughout the country. We are threatened in many districts with a stationary or even a decreasing population, and yet we are squandering the life of the young at a rate that is alarming. According to figures given in the Report of the Consultative Committee upon the School Attendance of Children below the Age of Five, the number of deaths per thousand during the decade 1891-1900 was:—

	Scotland	England and Wales
Under 1 year . . .	127·9	153·3
1-2 years . . .	43·6	42·4
2-3 „ . . .	17·6	16·0
3-4 „ . . .	10·4	10·1
4-5 „ . . .	7·3	7·2

Much of this is due to the poverty or ignorance or neglect of parents. There are countless families in which the offspring have to grow up amid extreme poverty, often cold and hungry and poorly clad, or amid squalor, dirt, and other conditions in which there can be no health of body or of soul. They are disinherited beings from the beginning. They are damaged for life during the plastic years of early childhood, and the primary school receives them weakly, stunted, and often coarsened and corrupted by their surroundings. There is every probability that if they grow to manhood or womanhood at all

they will become burdens upon society instead of bearers of burdens.

If we are to attack at its source this common cause of social disease, the educational authority must supplement the deficiencies of those parents who are incapable, through one cause or another, of superintending the early development, both physical and moral, of their children. Such help will be more economical and more efficacious than the doles of Poor Law Authorities which may alleviate but rarely cure. Until educational authorities and the community recognise the extent of the mission of the school, 'many innocent and helpless children will be doomed to walk the downward path which leads to failure, inefficiency, ill-health, and crime.'<sup>1</sup>

### *Day Nurseries*

The State acknowledges its duty of caring for and training certain children by paying grants for any over three years of age attending the public elementary schools. But it cannot stop there, for the first three years of a child's life are the most critical of all as to the permanent effect upon the child's development in after-life. It must help to establish day nurseries for the nurture and care during the daytime of infants whose parents must go to work. This is what is done in some other countries, and notably in France, which provides a fairly complete system of crèches, caring for children from a few weeks old. The countries

<sup>1</sup> Carlton, *Education and Industrial Evolution*, p 287. (Macmillan.)



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which have instituted crèches have done so to protect themselves against future loss and greater burdens.

No one questions the fact that a good home is nature's provision for the proper care and treatment of the growing child. It has advantages that no other institution can reproduce. But if the mother is incapable of taking care of the child, or if she has to go out to earn a living, the home loses its advantages. The wage-earning mother has generally no alternative but to leave her children of tender age to be cared for by older members of the family, if there are such, or to 'put them out' to take their chance with the families of equally over-pressed or badly-housed neighbours, or to send them to be taken care of by a 'minder' who makes a living by looking after a number of children in this way. All these methods are unsatisfactory, and many hard-driven mothers would gladly take advantage of a better system, and pay according to their means.

It is of great importance, therefore, to the welfare of the community generally that under existing economic conditions there should be a sufficient supply of public day nurseries in the poorer districts of our industrial towns. Into them should be admitted children from, say, six weeks to three years old, whose mothers are obliged to go from home to work, or to work at home under unhealthy conditions. Neither sick children nor children from infected homes should be admitted. The day nurseries should be open on weekdays from 7 A.M. to 7 P.M. With few exceptions,

payments should be made daily or weekly by the parents for at least part of the child's keep.

The buildings should be suitable for the purpose, and not merely altered buildings. They should be fitted up inexpensively like a nursery, with sleeping-places, pictures, toys, and small chairs. There should be ample room for the older babies to play in. Babies from eighteen months to three years old should spend most of the time in the garden when weather permits, and after meals they should sleep there in hammocks. Everything necessary for the health of the children should be provided, and a doctor should visit the nursery frequently.

The institution should be under the care of a skilled nurse who understands baby nature. It should be under the joint supervision of the Local Government Board as the authority for public health and of the Education Department as the authority for education. The actual management should be left to a committee of ladies, and any inspection should be carried out by a lady inspector. Each day nursery should be supported partly by the sums paid by parents for the care and feeding of their children, partly by government grants and local rates, and partly, it would be hoped, by subscriptions, donations, and legacies from philanthropic individuals.

### *Nursery Schools*

The babies at about the age of three should pass on to a nursery school in the same building. Here

the training of the child till five years of age should be continued in the spirit of an intelligent and devoted mother. There should be no rigid time-table, the length of the lessons should be at the discretion of the teacher, and formal lessons in reading, writing, and arithmetic should be excluded. The children should not be subjected to any undue mental or physical discipline. The children's natural instinct for movement should not be unduly checked, and in all the work of the nursery school we should keep in mind one of the important aims of the founder of the kindergarten—'the conscious nurture of the free self-activity of childhood.' The training of the child through spontaneous and free activity is even more distinctly the aim of the Montessori method of education that is attracting so much attention at the present time, and the spirit of that method should be assimilated by the nursery school.

There should be singing and dramatic games, story-telling, and memorisation and recitation of simple poetry. In this way the children will gain in language power, their imagination will be directed into worthy channels, and the seeds of good literary taste will be sown. Their mental powers should be further trained through much hand-work, brush-painting, weaving, building, modelling in wet sand (not clay), &c. Much time—at least half the day when weather permits—should be spent in the garden in tending the plants, in playing with sand and toys, and in games. In all the routine of the nursery school we should follow

the spirit rather than the exact letter of the kindergarten. Great attention should be given to the personal hygiene of the children, for there is perhaps no period of life during which care of the body will bring greater reward. Bad physical habits are not yet firmly rooted, and physical defects are as yet more easily dealt with—such as defects of the teeth, eye, ear, and throat. There should be adequate medical inspection. The children should be taught healthy habits of cleanliness, of rest, and of exercise. They should sleep for an hour a day after dinner, and this sleep should take place in the garden when the weather is good.

All these are essential parts of the curriculum of a nursery school. Dinner should be provided for those of the infants whose parents wish them to stay for the midday meal. A small sum should be charged for it, and only in necessitous cases which have been carefully investigated should dinner be provided free. In the case of too many parents the need of working for their children is almost the only remnant of the sense of parental duty left, and, while protecting the helpless young from neglect, we should do nothing to weaken this feeling. Attendance at the nursery school should, however, be free, and the school should be an integral and grant-earning part of the school system under the Local Educational Authority.<sup>1</sup>

<sup>1</sup> In France and Belgium the age for compulsory school attendance is six, but France provides accommodation in *Écoles Maternelles* for about one-fourth of the children between two and six; and Belgium, before the outbreak of the great War in 1914, accommodated in

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In fixing the amount of nursery school accommodation necessary, the Educational Authority should keep in view the industrial and social conditions of the various parts of the area administered by it, and should place the schools so as to be most accessible to children whose home conditions are not satisfactory. There would still, doubtless, be room for crèches and kindergartens supported by private individuals or societies in districts in which the Local Educational Authority has not provided day nurseries or nursery schools. Only, these private institutions would have to be open to inspection to ensure that the children in them are being treated on proper lines.

Day nurseries and nursery schools should be utilised to give girls in the upper classes of the elementary schools and the students in colleges of domestic science practical training in the care, management, and feeding of young children. Such pupils and students should learn to make garments for use in day nurseries, and they should do some of the washing and cooking.

Under ideal, or even good, home conditions the recommendations of this chapter would not be necessary. But unfortunately such conditions are far from being universally attainable at the present time, and are not likely to be for some time to come. Until then public day nurseries and nursery schools

*Écoles Gardiennes* nearly one-half of her children between three and six years old. Switzerland, Germany, and the United States all make much fuller provision for the training of children under school age than we do.

will be necessary to combat festering social diseases, and to give poor and neglected children the nurture and training which the home cannot or will not supply. They will amply repay the expense involved by creating and fostering a higher ideal of the responsibilities of the home towards its offspring, and by raising the physical, mental, and moral standards of future generations.

## CHAPTER XV

### EDUCATION AND PUBLIC HEALTH

WRITERS on education have always maintained in theory the importance of cultivating a healthy body as the basis for the education of the mind.<sup>1</sup> But until the last few years, this theory has been almost totally neglected in practice. No schoolmen can claim the credit, we fear, for the change that has recently taken place. Rather, the duty of maintaining the health of children at schools has

<sup>1</sup> Plato said man consists of a body and a soul; 'we are not to fashion one without the other, but make them draw together like two horses harnessed to a coach.' It was Juvenal who first pointed out the necessity of *mens sana in corpore sano*. Montaigne said, 'It is not a soul, not a body, we are training up; it is a man, and we ought not to divide him into two.' Locke, adopting Juvenal's aim of a sound mind in a sound body, said, 'He that hath these hath little more to wish for, and he that wants either of them would be but little the better for anything else.' Rousseau wrote, 'The body must needs be vigorous in order to obey the soul. . . . In order to learn to think we must exercise our bodies which are the instruments of our intelligence.' Herbert Spenser said, 'As remarks a suggestive writer, the first requisite to success in life is to be a good animal, and to be a nation of good animals is the first condition to national prosperity. . . . It is becoming of especial importance that the training of children should be so carried on, as not only to fit them mentally for the struggle before them, but also to make them physically fit to bear its excessive wear and tear.'

been forced upon them by the logic of events. There has been first of all the recognition, rather late in the day, that compulsory education in schoolrooms under present conditions means a certain amount of compulsory disease through infection. And the very fact that the State requires the attendance of children at school for eight or nine years imposes an obligation upon it to care for their physical welfare during that period.

Then, too, there has arisen in recent times a general movement for the improvement of public health. There has been what the French call a *Renaissance Physique*. This is due no doubt partly to a fear of physical deterioration of the race under the high pressure of modern life. But it is due mainly to the fact that the public mind is now aroused to the primal importance of the health of the people. There can be no social progress or social efficiency without it. We recognise now, as we never did before, that the most important of all our national resources is the good health of the citizens. Our economic efficiency and even our intellectual and moral achievements as a people are dependent upon it. It has been truly said that a nation to be great must first make of its citizens good animals. Every kind of greatness and success has a physical basis.

A natural concomitant to the movement for bettering the public health generally is the increased attention now paid to the health and strength of school children. The health and physical efficiency



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of the adult community in the next generation are built upon the physical welfare of the children of the present. The school is thus our most influential agency and our strategic starting-point for the prevention of disease and the enhancement of our national health and working-power.

We have already in previous chapters drawn attention to the enormous and unnecessary waste of human life and potential power through the diseases of infancy and childhood. Some of the mortality and physical deficiency is due, as we showed in the preceding chapter, to the State making no provision for the physical well-being of neglected children below compulsory school age. Also, some of the injury to those above that age is inseparable from present school conditions. The mere subjection of children to school routine and discipline, and to segregation and confinement in schoolrooms for a number of hours a day, during which they are deprived to a certain extent of sunshine and fresh air at an age when these are most important to their growth, is detrimental in some degree to the health of the children.

But after every allowance is made for what may be said to be unpreventable, our present school arrangements cannot escape blame for spreading disease, and causing or aggravating physical defects. It is a striking fact, deserving of the careful attention of educationists, that the health record of children not attending school is better than that of those

attending it. The school has contributed to the number of cases of short-sightedness and of spinal curvature, and it has bred and spread infectious diseases.<sup>1</sup> It has caused over-pressure in many cases, and by interfering in this way with nerve nutrition and growth it has injured the physical and mental development of the young.

The over-pressure or nerve strain has been exerted in many different ways. Fine sewing and writing have been exacted from young children before even the larger muscles of their hands and arms have been trained, and the work has been done only at the cost of painful and exhausting effort. The over-pressure has been due sometimes to requiring pupils to pass examinations too difficult for them. It has been caused by requiring young children day after day to keep still for considerable periods when reasonable freedom of movement might have been allowed. It has been caused by the overloading or bad arrangement of the curriculum, or by imposing tasks without

<sup>1</sup> Dr. Wood of Teachers' College, Columbia University, points out that 'Board of Health Reports show that cases of measles, diphtheria, scarlet fever, and whooping-cough increase in number from the beginning of the school year in September, when the housing up and segregating process begins, up to March or April when the children are more of the time out of doors. During the summer vacations the curves indicating the prevalence of contagious diseases are at the lowest. We are driven by such statistics to the conclusion that the school disseminates disease, and is responsible, in part at least, for the greater prevalence of contagious diseases of children during the winter months. Extraordinary precautions based upon improved scientific method will be necessary in order that the school may successfully safeguard the children from disease and infection.' (*Ninth Year Book of the National Society for the Study of Education*, p. 20.)

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due consideration of individual limitations. As some one has said, what is over-pressure to some is only intellectual vagabondage to others. In many cases the overpressure has been due to school work being combined with underfeeding or parental neglect, or with the half-time work system,<sup>1</sup> or with employment out of school hours.

But whatever the form or cause of the over-pressure, the result of the strain if prolonged is inevitable—feebleness of constitution, vulnerability

<sup>1</sup> An Inter-Departmental Committee on Partial Exemption from School found that in England in 1906 there were over 47,000 half-timers, mostly in industrial centres like Lancashire and Yorkshire. This system impairs the health and growth of the young workers. As soon as children become half-timers at the age of twelve they fall below the standard of the health and physique of the children in full attendance at school. A synopsis of returns given by Medical Officers in Lancashire published by the *Schoolmaster* in February 1913 showed that 'there were five times as many cases of physical defect of eye, ear, throat, &c., and of organic or general weakness noted by the doctor as requiring medical treatment amongst half-timers as amongst other children.' Other evidence to a similar effect has been collected, and there can be no doubt that, in view of such facts, the half-time system should be abolished.

Many children in full attendance at school are engaged out of school hours in street-trading, or in working at home or in shops. A Parliamentary Return in 1899 estimated that 178,000 children of school age were employed in this way in England. These figures revealed a serious state of affairs, and an Inter-Departmental Committee on Physical Deterioration (consisting of representatives of the Home Office, the Board of Education, and the Board of Trade) was appointed in 1904. The Committee found that the number of children concerned was at least 200,000, and the evidence collected showed that serious intellectual, physical, and moral injury was being done to the children. The Report should be read. An outcome of it was the passing of the Employment of Children Act, 1904, which protects in some measure children in attendance at school from undue labour, and gives Local Authorities power to make further by-laws to regulate the employment of children in their area.

to disease, and loss of efficiency which will impair the whole future life of the child. Education should aim at physical and mental equilibrium, at developing body and mind simultaneously and in due proportion. The physical and intellectual dangers of over-pressure in education are even more obvious if we consider them from the point of view of the race. As Fouillée points out, so far as the race is concerned, 'a cultivated intellect, based upon a bad physique, is of little worth, since its descendants will die out in one or two generations.'<sup>1</sup> By over-pressure education impairs the physical and industrial efficiency of future generations, and lowers the level of the race which it aims at elevating.

School hygiene is a thing of recent growth. We might search through government reports or records of educational meetings a few years ago without discovering mention of it. At first it had the merely negative aim of preventing disease. The State considered that its care for the health of school-children ended with laying down regulations to prevent the spread of communicable disease, and with insisting upon the suitability of the site, and the proper lighting, ventilation, and sanitary conditions of school buildings. But now school hygiene has passed to the positive and more inspiring aim of developing to the utmost the health and vitality of the young through physical education, medical inspection and treatment, school feeding schemes

<sup>1</sup> *Education from a National Standpoint*, p. 32.

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for necessitous children, open-air schools, and a variety of special schools for physically and mentally defective children.

The chief agencies for physical education are play, games, and physical drill. They should form a prominent element in our educational system, since it is mainly by the amount of care taken during the years the child is at school that the final development of the body is fixed.

The significance of play, not only for physical but also for intellectual, moral, and social training, is a comparatively new theme in educational circles,<sup>1</sup> and much still remains to be done in utilising the play instinct more effectively as an aid to the education of childhood. Play is more than a mere vent for surplus vitality. It is the natural expression of child-life. It is nature's schooling, through which the child gets the greater part of his early education. It is the means by which the inner growth of the child is secured independently of formal instruction. Play, moreover, is essential to the bodily welfare. Through it the young gain control over their muscles. It is not only the best form of physical exercise but it acts as a tonic to the whole nervous system, and keeps 'the springs of being

<sup>1</sup> This is the more surprising as the educational value of play was established by Froebel in *The Education of Man* as early as 1826. In it he says, for instance, 'We should not consider play as a frivolous thing; on the contrary, it is a thing of profound significance. . . . By means of play the child expands in joy as the flower expands when it proceeds from the bud; for joy is the soul of all the actions of that age.'

ever fresh and flowing.' At every stage of education we must make room to some extent for what Rousseau called 'the noble art of losing time.' Tired powers must be allowed to recuperate. When mental exercise has fatigued one part of the brain, play must call into action other areas of the brain and send nerve currents to energise the tired cells.

Play and games should be the central feature of the physical education of childhood to which all other forms should be supplementary. As far as possible the play of children should be free and spontaneous—the expression of their own nature without adult restriction or guidance. It is an instinctive impulse, and it should be allowed to a large extent to take care of itself. This should be especially the case during the first eight or nine years of a child's life. Only in this way will play give scope for the individuality of the child and develop his sense of freedom and power.

But physical education, for its full effect, must depend upon something more purposive than free play and games planned and carried out by the children themselves. There are many reasons for this. For one thing, their play if unsupervised may, as they grow older, be so strenuous as to lead to exhaustion. Also, children do not know what to play, and if left entirely to themselves their play as they get stronger will tend to degenerate into disorganised rough and tumble, pushing and teasing. They need assistance to suggest good games, and to be shown how

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to play them. How often do children ask to be told something to play? Guidance and assistance are specially needed by the children in the poor and crowded districts of our great cities. The surroundings, generally ugly and squalid, are not such as to encourage play. Without space to play in, with imaginations fed only by the impressions of the streets, the joyous activity of these children is strangled, they do not know how to play, and unless they are helped to play, their vitality is lowered, and they and those who come after them become drags upon the race.<sup>1</sup>

Organised play and games—the physical exercise *par excellence*—should form a regular and daily part of the education given in every school, and in primary schools even more than in secondary. Their educational importance is fully recognised by the Regulations of the Board of Education for Primary Schools. They not only give pleasure and zest, but they accomplish, in a natural and unconscious fashion, most of the desired ends of physical education. They teach self-reliance, they increase physical and mental alertness, determination and quickness of judgment. ‘There is no better

<sup>1</sup> Mrs. Humphry Ward, in *The Play-Time of the Poor* (Smith, Elder & Co.), quotes words of Charles Lamb which are too true yet, despite the changes that have taken place in the hundred years since they were written: ‘The children of the very poor have no young times. They do not prattle! The child of the slum is transformed betimes into a premature reflecting person. It was never sung to; no one ever told it a tale of the nursery. It was dragged up to live or die as it happened. It had no young dreams. It broke at once into the iron realities of life.’

work in the field of education than to inculcate a wholesome love of games in the playground, for to do this means the creation of an *esprit de corps*, a readiness to endure fatigue, to submit to discipline, and to subordinate one's own powers and wishes to a common end. It is for this reason that schools which can raise football and cricket teams, swimming clubs, and cadet corps, are wont to exhibit such excellent work inside the walls of the school.' <sup>1</sup>

It follows from what has been said that the work of the teacher in a primary or secondary school is not confined within the walls of the schoolroom. He should consider it a matter of professional obligation to take an interest in the games of the pupils in the playground and in the playing field. He will find that the pupils will welcome his assistance if given without officious interference, and that he will get an opportunity of knowing his pupils and of influencing them in a way that is impossible by any other means.

Now that we realise the purpose and educational value of play, which, as Montaigne said, both trains the muscles and braces the mind, we see that the playground is one of the most essential parts of a school structure. Unfortunately primary schools are not as a rule so well off in this respect as secondary schools, and they ought to be. A school without an adequate playground should be considered somewhat of an educational deformity, and an injustice to the children

<sup>1</sup> Board of Education's *Suggestions for the Consideration of Teachers*, p. 76 (Cd. 2638).



attending it. There are hundreds of schools, especially in our large cities, with totally insufficient facilities for play, the excuse being the dearness of land. In parts of London the cost of playground accommodation runs from 10s. to 14s. per square foot. This is well-nigh prohibitive, and raises questions regarding our social economy that may have to be considered some day. Playgrounds in the basement or on the roofs of school buildings are poor substitutes for open playing grounds, and we must look forward to the time when cheap transport will enable workers to live away from congested districts, and will develop industries in villages remote from large towns. Then we may have a return to something of the rustic simplicity described by R. L. Stevenson :—

Happy hearts and happy faces,  
Happy play in grassy places—  
That was how, in ancient ages,  
Children grew to kings and sages.

In addition to playgrounds our school system requires adequate recreation grounds or playing fields in which organised games may be played, and in which the older pupils of the primary schools may play games like football, cricket, and hockey. In the planning of new towns, or the extension of present ones, open spaces for games should be reserved at such intervals as to be within easy reach of any given district. Meanwhile, there should be an arrangement made between the educational and the municipal

authority for the more systematic utilisation of portions of the public parks for the games of school children. This plan is already in operation with great advantage in a number of our cities, but it requires fuller and wider adoption.

Open spaces for play out of school hours are greatly required in crowded and slum districts. If children have nowhere to play but the streets, not only does their health suffer but they are subject to many dangers, to temptations to crime, and their play tends to organise itself on the street-gang basis. Playless districts are the hotbeds of juvenile delinquency. If adequate means were provided for public recreation in the densely populated parts of our large towns, less money would be required for juvenile and adult reform. Amusement is stronger than vice, and the best preventive for crime in the young is plentiful opportunities for play.

The case for public playgrounds was forcibly stated in an address by Mr. J. A. Riis of New York. He said: 'We are coming to realise that if we want strong men and women as members of our social system we must have strong children; we must protect them from the deadly toils of child-labour, and must give them parks and playgrounds rather than crowded streets. Life is a child's first right, and after that freedom from work and a place to play in during his tender years. There is a startling connection between our great army of tramps and child-labour and parkless slums. The boy without a

playground is father of the man without a job. We have been manufacturing our own criminals by consigning our city children to the streets.'

School playgrounds ought to be open after school hours, and a larger number of open areas should be provided and equipped for out-of-door games and gymnastics. If an inventory were made of all the vacant sites, waste places, and reclaimable areas in our cities, it would be found that many play spaces could be obtained at little public expense. Some capable and sympathetic person should be placed in charge of the playgrounds, to supervise the play of the children and to see that they are taught organised play. There would be little difficulty in getting voluntary helpers to give time and service to assisting this valuable work. 'There is no work in which the kindness and cleverness of English ladies can be employed with more good to the community and with more happiness to themselves than in teaching children to play.'

The need for work of this kind is making a strong and successful appeal to all who are interested in education and general social conditions. Many supervised play-centres have been opened in London, largely through the instrumentality of Mrs. Humphry Ward whom we have just quoted. The movement has spread to several other towns in England, and valuable work along similar lines is being done by the Play Centre Association in Edinburgh. The play centres are supported as yet mainly by private philanthropy, but the work cannot extend, as it should, until it is administered

more largely by the educational authorities. It belongs to public education in the largest sense, for it is a means of developing the physical and moral nature of the young who may be unfortunately circumstanced, and of training them to a healthy and efficient manhood and womanhood.

In addition to play and organised games, scientific physical training or gymnastics is an essential part of all education, both primary and secondary. Play and games alone are not a guarantee of all-round physical development. Parts of the physical system are not reached by the haphazard training they give. Physical efficiency is as much a matter of the nervous system as of the muscles, and the finer neuro-muscular co-ordinations are not developed by play and games alone. We require, in addition to these, physical training consciously and purposely directed. That is the recommendation made in the Report of the Inter-Departmental Committee on Physical Deterioration, and of the Royal Commission on Physical Education in Scotland, and it is given practical effect to in the valuable and comprehensive syllabus of physical exercises issued since then conjointly by the English Board of Education and the Scotch Education Department.

Physical training has many advantages which should ensure it a place in the education of every child. It gives a great deal of useful exercise in a limited time, and it does not require a large amount of space as play and games do. It is eminently useful

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in developing symmetry and correct proportions—the Greek ideal of balance in physical development—and it can be adapted to individual needs and be used to remedy personal defects. It is a part of moral education in as much as it requires personal effort in the pursuit of a worthy ideal—namely, the perfection of bodily development.

But physical training tends to be conventional and lacking in spontaneity as compared with other forms of exercise. Herbert Spencer rightly called it ‘factitious exercise.’ It is too much like a lesson. Unless skill is shown by the teacher, it is uninteresting and wearisome from the absence of amusement. It involves exercise of will power and considerable mental as well as physical strain, and it ranks with mathematics as one of the most fatiguing branches of instruction.

Certain general conditions must be observed in physical training if the best results are to be obtained. The exercises should be given as far as possible out of doors. But at the same time, class-room calisthenics should be a recognised part of physical education. A few minutes devoted now and then to breathing exercises and suitable exercises of the arms, &c., will remove the bad effects of cramped and constricted postures in class-work. Another aim to be kept constantly in view by the teacher of physical training is to secure the interest of the pupils, so that they may take a pleasure in doing things whose performance will lead to good health. We must make the work instinct with the joy of living. Get away from formal, artificial

kinds of movement. Utilise some of the movements involved in dancing (including folk-dancing) and games and, in the case of boys, in military drill.

In physical training quality is more important than quantity. It is not increase of muscle merely, but of vitality and good health, that is our object. Furthermore, health is a means and not an end. We cultivate the body to make it the fit bearer and ready servant of the cultured mind. 'Body for the sake of soul' was one of the guiding principles of Plato, and it should never be lost sight of by those dealing with the physical aspects of education.

## CHAPTER XVI

### EDUCATION AND PUBLIC HEALTH (CONTINUED)

BRITAIN has not lagged long behind other countries in the matter of the medical inspection of school children. It was taken up first of all in a tentative way by some of the more progressive local educational authorities, as in London, Bradford, &c., but it was soon found that partial effort was not enough. Evidence given before various Commissions—such as the Royal Commission on Physical Education in Scotland (1903), the Inter-Departmental Committee on Physical Deterioration (1904), and the Departmental Committee on Medical Inspection (1905)—showed that the school children were suffering from ill-health and physical defects to an extent that had never been imagined. The evidence thus brought forward led Parliament to pass in 1907 the Education (Administrative Provisions) Act making the medical inspection of school children compulsory in England and Wales. Similar provision for the northern part of the Kingdom was made by sections 3, 4, and 6 of the Education (Scotland) Act, 1908.

Medical inspection has already made great

strides during the short time these Acts have been in operation. Each child is now examined by the medical officer at the beginning and end of his school career, and at suitable intermediate intervals. Annual reports have to be sent to the Board of Education by school doctors all over the country, and these are supplying much valuable information regarding the physical handicaps of school children. The facts that have been brought out by these first attempts at a systematic survey have been well-nigh overwhelming. They reveal an amount of weakness, defect, deformity, and disease of which we had no idea. A Report of Sir George Newman, the Chief Medical Officer of the Board of Education, issued in 1914 states that :—

‘To speak generally, it may be stated that out of the six million children registered on the books of the Public Elementary Schools of England and Wales about 10 per cent. suffer from serious defect of vision, from 3 to 5 per cent. suffer from defective hearing, 1 to 3 per cent. have suppurating ears, about 10 per cent. have adenoids, inflamed tonsils, or enlarged cervical glands requiring surgical treatment, about 1 per cent. have ringworm, 1 per cent. suffer from tuberculosis of readily recognisable form, from 1 to 2 per cent. are affected with heart disease, from 30 to 40 per cent. have unclean heads or bodies, and probably more



than half the children are in need of dental treatment.

‘These percentages are, of course, approximate only; they exclude children invalided from school; they exclude the blind, deaf, crippled, mentally defective, and epileptic; they exclude all cases of infectious diseases; and they exclude also that great group of children who are suffering from indefinable malnutrition, debility, and low vitality, and who number not less than half a million. But even these underestimates, if worked out on six million children, yield a burden of disease which suggests not only much suffering and pain, but a serious degree of absolute incapacity to profit from the education which the State provides. Nor must we ignore the fact that this extent of child disease means an increase to the national burden of sickness and disablement in adolescence and adult life.’

Evidence of this kind gives cause for anxiety, and shows the need for the medical inspection of school children. We know now that much that was attributed before to stupidity or inattentiveness or laziness on the part of the child is the result of defective hearing or eyesight, or abnormal growth of adenoids. Some of the defects that have been revealed by inspection, if they are not attended to, become more marked with the growth of the child, and may cause

further harm by spreading to other parts of the body. Periodical medical inspection should discover these defects at an early stage, at which they will in most cases be easily cured. But medical inspection should do more. It should prevent the schools from being one of the chief means of spreading contagious and infectious diseases. It should see that the entire hygienic conditions of the schools are attended to, for it is not profitable to confine children for hours a day in badly ventilated and poorly lit class-rooms, and then have perhaps to build special schools for them when they have become anæmic and physically defective.

There is no doubt that through the regular medical inspection of school children we are at the beginning of a far-reaching movement for preserving the health of the people, and for removing one of the great obstacles to social progress. The aim of medical inspection is not the accumulation of statistics, but, as pointed out in a memorandum of the Board of Education, 'the physical improvement and, as a natural corollary, the mental and moral<sup>1</sup> improvement of coming generations.' Emphasis must be placed on preventive measures, and the sources of disease must be attacked and eradicated. The nation will not derive the full benefit of medical inspection unless it is followed by action, either by

\* <sup>1</sup> 'A weak or a sickly body is a grievous moral disability in so far as by narrowing the range of contact with life it stunts the character.' (MacCunn, *The Making of Character*, p. 55.)

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the parents or by the State, if necessary. The Act of 1907 gives the local educational authorities power to provide medical treatment,<sup>1</sup> and many of them have done so in a manner deserving of all praise.

More than half of the local authorities in England and a small fraction in Scotland have adopted schemes of medical treatment. There is great diversity in the schemes. The most efficient as well as the most economical plan appears to be that of the school clinic where professional attendance is given periodically for the treatment of the eyes and teeth, of ringworm and skin diseases of a contagious character, and of minor ear troubles, enlarged tonsils, adenoids, &c.

In large centres a clinic can serve a group of schools. In Edinburgh, for instance, a clinic has been established in a central position, and in it treatment is provided for defective eyesight or teeth or for diseases of the skin; and nurses follow up the cases in the children's homes and see, as far as possible, that the doctor's suggestions for treating the various ailments are carried out. The staff employed consists of the chief medical officer, three assistant medical officers, four trained nurses to assist the doctors in the general inspection work, and six trained nurses employed in connection with medical

<sup>1</sup> It was intended by the Education (Scotland) Act of 1908 that the same power would be extended to Scotland. It was found, however, in the law courts five years later that the Act would not bear this interpretation. This was at once remedied by the Education (Scotland) Act, 1913, which made it legal for School Boards to incur expenditure on medical treatment of school children from the school rates

treatment. In some parts of the country arrangements are made with hospitals or with general practitioners to supply the medical inspection and treatment.

School authorities now receive grants from the Board of Education in aid of expenses incurred for medical treatment. In England and Wales the total grant for this purpose in the year 1913-14 amounted to over £80,000 and in Scotland to £7,500, and in this way local educational authorities are encouraged to take general advantage of the powers conferred on them by the Act. In some districts a small fee is charged for treatment; in others this is not done, as it often has the effect of making the parents refuse to allow their children to undergo the treatment.

The experience of the last eight years shows that the compulsory medical inspection of school pupils has had a considerable effect in rousing parents to take a more intelligent and active interest in the health of their children; but there are many districts in which the effect is as yet comparatively small. In some localities the repeated advice of school doctors and visits of school nurses fail to produce any effect, and as many as 60 per cent. of the children found to be ill go untreated.

Many educational and medical experts who were at first opposed to State medical treatment of school children are now becoming convinced of its necessity. If we cannot compel the home by law to discharge its responsibilities, society must supply the want

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rather than allow the child to suffer damaging physical neglect. This is necessary in the interest not only of the child but of the whole community. It is preventive work of the best kind to attack diseases as early as possible. The Chief Medical Officer of the Board of Education says: 'Many of the diseases and physical disabilities of the adolescent and the adult spring directly out of the ailments of childhood. For example, malnutrition, debility, dental caries, adenoids, and measles in childhood are the ancestry of tuberculosis in the adult. They predispose to disease, and are, in a sense, both its seed and soil; and thus it is that tuberculosis in the adult, which may be taken as a type and example of preventable disease, is, in large part, the direct development of disease in the child.' Better spend thousands on medical treatment at an early stage than scatter millions later on in caring for human wreckage past repair. A compulsory school medical service will gradually raise the standard of health of the community. It is a necessary part of a sound scheme of national health insurance.

Experience has demonstrated the value of the school nurse in connection with medical inspection and treatment. Where large numbers have to be dealt with the nurse can save the doctor's time for examination and diagnosis. She can assist in the routine work of inspection, and can follow up the work of the doctor and see that his directions for treatment are carried out. Under the supervision

of the doctor, she can attend to minor ailments and injuries ; she can raise the standard of cleanliness among the dirtier children ; she can detect the early symptoms of infectious diseases, and in various ways diminish the risks of epidemics due to segregation.

An important indirect benefit of the medical inspection of school children is that parents are stimulated to aim at a higher standard of health in the home. While visiting the homes the nurse can consult with parents concerning the medical treatment the children should have, and she may get opportunities of giving suggestions, if asked to do so, regarding the home care of children and home hygiene in general. The school nurse is thus a valuable intermediary between the doctor and the school on the one hand, and the school and the home on the other. She is worth many attendance officers, and should without further delay take the place of that functionary in our educational system.

The coming of the school doctor and school nurse is one of the far-reaching developments of modern education. Their appearance in the educational field marks the beginning of a movement for the improvement of public health through the agency of the school. Their aim till now has been the detection and cure of disease ; their next aim will be the prevention of disease ; and the final and greatest aim of all will be the raising, through the school, of the standard of health and efficiency of the whole race.

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The heaviest toll levied on human life by any one disease is that exacted by tuberculosis. England is losing over 35,000 and Scotland over 5000 people a year by phthisis alone, and investigation has found that from 25 to 35 per cent. of the children of these families are infected, and will succumb to the disease unless special precautions are taken. The chief preventative is fresh air. The report of the Departmental Committee on Tuberculosis, published in 1913, stated that 'There is urgent need for a wide application of the principle of open-air treatment and education by means of open-air schools (day and residential), open-air classes, &c.' By early open-air treatment in the schools and in the homes there is no reason why this dread disease should not in course of time be reduced to narrow limits, if not entirely eradicated.

Part of the expense of open-air schools might in some cases be defrayed from the grant in aid of buildings for sanatorium purposes under the National Insurance Act. It is more important in the case of tuberculosis than probably any other disease that public funds should be expended in early prevention rather than later amelioration. But open-air schools or classes would be a benefit not only to the tuberculous, but to the anæmic, the convalescent, and the delicate child, and even to the child of ordinary physique whose parents believe in purer air and fuller sunlight than are to be found in the ordinary school-room.

The typical open-air school is a collection of unpretentious sheds and verandas within easy reach from a town, and yet far enough removed from it to be among green fields and pine woods. Here the sickly children are oxygenated and ozoned back to health, while they are all the time making good progress in their studies. A child in the open air is more alert and capable of greater mental effort than if confined in an ordinary class-room. The school work and school hours are arranged on more rational lines than in an ordinary school. Nature-work is more emphasised and there are more frequent breaks for breathing exercises, singing, physical exercises, and games. After dinner the children rest and sleep in the open air for about two hours in well-blanketed deck-chairs, and then after a period of play there are more lessons for, it may be, an hour and a half or two hours. The afternoon instruction is often devoted to nature alone, and the lessons are given in the woods and fields or in the garden. The children can continue the outdoor lessons in cold weather or in winter if they are well protected by warm clothing, caps, and mittens, and have the lower part of the body encased in a sort of sleeping bag.

The movement in favour of open-air schools is spreading all over the country, and progressive educational authorities everywhere are taking part in it. They see that it is their duty to consider the health as well as the education of every child under their charge. The movement is incidentally



modifying our ideas regarding the school curriculum, and is influencing in a marked degree the construction of ordinary schools, so that all pupils may in future enjoy the advantages of light and air hitherto reserved for the tuberculous. It is impossible to make provision for all school children in open-air schools, but the adoption of open-air principles in the ordinary school would result in the prevention of much disease and suffering. The class-rooms in modern school buildings should be placed, as far as possible, to face the sun, and should open into a veranda by means of sliding glass partitions. Certainly no new school building should be erected without at least one open-air class-room for weakly children.

Open-air schools have passed beyond the experimental stage. There is no doubt they are saving the lives of many children, besides enabling others of poor physique and unfortunate heredity to overcome their physical handicap, so far as that is possible, and at the same time to hold their own in intellectual training. A great improvement to health is secured in these schools even if the children go home every night and for the week-ends, but much better results are secured when the children reside entirely in the schools. Experience has shown that three months in a residential open-air school do more good than double that period in a day open-air school. The residential open-air school is likely to be the type of the future. It need not be

expensive,<sup>1</sup> but in any case we should estimate the cost of such schools not only in pounds sterling but also in terms of the life, health, and increased efficiency secured to the nation by means of them.

<sup>1</sup> The Chancellor of the Exchequer in his Budget speech in 1914 stated that it was the intention of the Government to give a special grant for open-air schools.

## CHAPTER XVII

### EDUCATION AND PUBLIC HEALTH (CONTINUED)

ONE of the important means of influencing public health consists in the proper nutrition of the young. Poor food, badly cooked food, and deficient food seriously interfere with the mental and physical growth of children.<sup>1</sup> As a result of the compulsory medical inspection of children we are now in possession of fairly accurate information regarding the extent to which malnutrition prevails, and valuable evidence on the point is contained in the Reports of the various Commissions referred to in the preceding chapter. It is startling to be told in these Reports that from seven to ten per cent. of school children are regularly underfed, and that the percentage rises to a serious extent in poorer districts. In London at least 60,000 of the children attending the public elementary schools were found prior to 1906 to be badly nourished, and similar serious conditions have been shown to exist in other towns, such as Birmingham, Glasgow, Edinburgh, and Dundee.

<sup>1</sup> See chapter vii. of *The Children*, by Professor Darroch. (London : T. O. & E. C. Jack.)

Underfeeding and malnutrition are not necessarily accounted for by the poverty of the parents, although that is by far the most frequent cause. There are many other causes at work—such as the daily absence of the mother from home when she is acting as a wage-earner, or the wilful neglect of parents and the waste of family means in drink, or the ignorance of parents in regard to the most desirable forms of food for children. Frequently the food given is non-nutritious, and often it is positively injurious. Proteids and fats should form a larger proportion of the diet of children than of adults. How many parents are ignorant of that, and of the foods that best supply the necessary materials? Malnutrition is undoubtedly one of the most potent causes of defective physique. When we consider the amount of improper feeding of children that prevails, both as to kind and quantity, we need not be surprised at the prevalence of rickets in many districts and of bad teeth everywhere.

Children who day after day are insufficiently or improperly fed suffer physically, intellectually, and even morally. An American author summarises the effects of underfeeding and other harmful conditions as follows: 'It has been shown over and over again that the children of the poor are behind better favoured children in physical development<sup>1</sup> in every way,

<sup>1</sup> The Medical Officer of Bradford Education Committee found that in the poor class schools in Bradford the children were less in height by  $\frac{1}{2}$  to  $2\frac{1}{2}$  inches, and in weight  $\frac{1}{2}$  to  $6\frac{1}{2}$  lb., as compared with children of the same age in the better class schools.

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often as much as two or three years. They are shorter in stature, lighter in weight, narrower of chest, and feebler of grip. Moreover, the evils do not end with school life ; for the constitution is so enfeebled that in after years the results are extremely severe. The victims of poverty in childhood fall an easy prey to disease ; they are soon exhausted, and become unfitted early in life for the work of the world. Much of our pauperism and crime may be traced back to this evil of underfeeding in childhood.’<sup>1</sup> Children lacking proper food do not possess the physical capacity to profit by the education they receive,<sup>2</sup> and the public money spent on their instruction is to a considerable extent wasted.

But the evil does not end there. Starved in body and mind, these unfortunate children are only too likely to swell the ranks of those who form a large part of our social problem and clog the wheels of social progress. Of all the evidence given before the Committee on Physical Deterioration, none was more striking than the statement by Dr. Eichholz, one of the Medical Officers of the Board of Education : ‘ I hold a very firm opinion which is shared by medical men, members of Education Committees, managers, teachers and others conversant with the condition of school children, that defective nutrition lies at the base of all forms of child degeneracy ; that is to say, if

<sup>1</sup> John Spargo, *How Foreign Municipalities feed their Children*.

<sup>2</sup> Sir George Newman states that the percentage of mentally dull children among the underfed is considerably larger than among children generally.

we take steps to ensure the proper, adequate feeding of children the evil will rapidly cease.'

The pressing importance of these matters is now fairly well understood, and various methods have been adopted to deal with them. A large number of towns have attempted through voluntary agencies to provide for the underfed children by supplying midday meals, either free or at a nominal cost. But charity, however admirable its spirit, always tends to have a pauperising and humiliating influence. Moreover, sporadic local efforts may deal with transitory needs, but they are quite inadequate to cope with so persistent and widespread an evil. No individual efforts can solve what is really a national problem. Probably not more than half the total number of children who need food have been reached by such efforts. Systematic provision must be made by law for the feeding of hungry children. Nothing but a national scheme by which every child shall receive, without humiliating conditions, all that is necessary for its physical as well as its intellectual development can meet the wants of the case.<sup>1</sup>

It was considerations such as these that led to the

<sup>1</sup> Thirty years ago a proposal to feed the hungry children in the public elementary schools would have been derided, and now such a proposal has the support of social workers and politicians of all parties and in all countries. In our own country it was a Liberal Government that passed the Acts of 1906 and 1908. The Social Reform Committee of the Unionist Party has approved of these measures, and has recommended that the powers conferred on local authorities of dealing with feeding, &c., be made compulsory, not optional. Labour and Trade Unionist Members of Parliament have year after year at their annual congresses made similar proposals.

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passing of the Education (Provision of Meals) Act in 1907. This Act empowers local educational authorities in England and Wales to make arrangements for the feeding of necessitous children, and to co-operate for this purpose with any voluntary committee already in existence. The Act is very careful and cautious in its procedure. Only in cases where no such committee exists and where other funds are not available, or are insufficient for the purpose, is a local authority empowered to incur the expense of providing the necessary food. The Local Authority must prove to the Board of Education that only those children are being fed who are unable, through lack of food, to take full advantage of the education provided for them. Power is given to recover the cost of the meals from the parents, unless it has been ascertained, after full inquiry, that a parent is unable to pay the necessary sum through no fault of his own. The cost of the provision of meals under the Act must never exceed the produce of a halfpenny in the pound on local rates.

More liberal provision was made for the feeding of necessitous children in Scotland by Sections 3, 6, and 16 of the Education (Scotland) Act, 1908. The Act gave the School Boards power to provide meals, if they thought it necessary, during holidays and on other days on which the school was not open for ordinary instruction, for poor children generally return to school physically the worse for a holiday ; it did not place a limit on the expenditure out of the rates for the provision of meals ; and it gave the Education Depart-

ment unlimited powers of giving financial aid. Indeed, at the present time the Department is giving a grant equal to not more than one-half of the net expenditure incurred by any School Board in providing meals to necessitous children attending any school within its district. Immediately after the great European War broke out in August 1914 Parliament passed amending Acts giving practically identical powers to the above to England, Wales, and Ireland.

School feeding has only been in force in this country for eight or nine years, and it is too soon yet to tell what its full effects, beyond relieving many cases of distress, may be. Careful tests applied in Bradford and other places have shown that there has been a steady improvement in the health and physique of the children concerned. Incidentally it is inculcating a wiser choice of food in the homes, and it is training the children to enjoy varied, nutritious, and wholesome food. There is in this the making of a strong race in the future, for the children are getting not only their own standard of healthy living raised, but they will be likely to take care that their children in turn get good wholesome food. Also, where the system is properly organised, and the meals are served under the supervision of the teachers, the children have an opportunity of learning habits of tidiness, mannerliness, courtesy, and unselfishness.

Two suggestions only need be made. In the first place all the children, whether poor or not, should be



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encouraged to eat their midday meal together, and the dining system should be regarded as a part of the school curriculum. There is power for this under the Acts. In no way should any distinction be visible between the children of paying and non-paying parents. The other suggestion is that adoption of the power to provide meals in necessitous cases should be made compulsory, not permissive; for it is really a part, and an important part, of the whole system of physical education.

The Board of Education has done meanwhile all that it can, by issuing circulars to local educational authorities calling their attention to their powers in connection with the provision of meals, and to the great advantage that might accrue by exercising them. But one-third of the authorities have as yet done absolutely nothing in the matter. As the Unionist Social Reform Committee on Education very pertinently asks: 'Why should a necessitous child be fed in one district and not in another? The Committee, seeing no justification for the existing diversity of treatment, recommend that the adoption of the Act should be made compulsory. It is important, however, that the meals should not be used as a grant-in-aid of poverty and low-paid labour. The meals should be regarded as an integral part of school medical treatment. The administration should be a section of the school medical officer's department, not an annexe of the office of the Board of Guardians.'<sup>1</sup>

<sup>1</sup> *The Schools and Social Reform*, p. 7.

It is often objected against legislation of the kind we have been referring to that it runs the risk of undermining parental responsibility, and may lead to much abuse on the part of careless or wicked parents. There are parents who will take advantage of any legislation. In their case the feeling of parental responsibility is already insignificant, and the only course is to prosecute them rigorously under the Education Act of 1906 and the Children Act of 1908. It is a dangerous thing to weaken parental responsibility, but it is still more dangerous to the State to neglect the well-being of the children. It is wise to see first that the hungry children are fed, and then, after due investigation, to take measures to enforce responsibility upon the parents. John Stuart Mill in his book on 'Liberty' said as long ago as 1859: 'It still remains unrecognised that to bring a child into existence without a fair prospect of being able, not only to provide food for its body, but instruction and training for its mind, is a moral crime, both against the unfortunate offspring and against society; and that if the parent does not fulfil this obligation, the State ought to see it fulfilled, at the charge, so far as possible, of the parent.'

Logic as well as humanitarian ideals make it necessary that the State should protect neglected school children. Since the State has gone so far in providing education for the children, fortunate and unfortunate alike, it must see that they get the necessary physical care and nourishment to enable

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them to derive benefit from the education furnished at so much public expense. We must in fairness recognise that the complex social and industrial conditions of to-day have weakened the influence of the home, and have made it more difficult for parents to meet their responsibilities. This has made a certain amount of State paternalism a modern necessity. Free education, free medical advice and treatment, and a certain measure of free feeding were bound to come. But in taking care that every child gets an opportunity of leading a healthy and useful life, nothing must be done to relieve the parent, who is able, but may be unwilling, from bearing his due share of the general burden.

One of the latest additions to our educational system is the School for Mothers.<sup>1</sup> Many mothers are hopelessly ignorant regarding matters relating to the laws of health and the feeding and care of babies. As a consequence there is a great amount of mortality and of permanent injury to health, especially during the first year or two of life.<sup>2</sup> This

<sup>1</sup> The first school for mothers seems to have been started at Ghent in 1902. Such schools are, however, not quite new in this country. From the earliest days of kindergartens there have been in connection with them classes or clubs for mothers in which mothers have, by means of informal talks, received instruction in matters connected with the welfare of children. The object of these clubs, however, has been to influence the ideas of the home rather than to give definite health instruction.

<sup>2</sup> In the year 1913 there were born in Scotland 121,006 children, of whom 3217 died within the first week, 5009 within the first month, 9,559 within the first six months, and 13,163, or 11 per cent. altogether, in the first twelve months. When we consider that every death of a

is a great loss to the nation, and a serious hindrance to the progress of society. It is largely due, as we have said, to the defective education of the mothers. Consequently the Board of Education, in July 1914, agreed to recognise schools for mothers as part of the educational equipment of the country, and to pay to the managers of such schools grants up to fifty per cent. of their approved expenditure.

In these schools instruction is given to mothers before and after the birth of the child in the care and management of infants and little children. The work centres round infant consultations with a doctor in attendance, and the mothers bring their babies to be weighed, and receive advice as to the general care and nurture of the little ones. Following on this, volunteer workers with practical experience of baby-rearing visit the homes of the mothers, and advise and help them in carrying out the directions they have received. To co-ordinate the work of these visitors, and keep it on suitable lines, they generally act along with a skilled woman who has been trained for this kind of work. The mothers also attend class meetings at which simple instruction is given in mother-craft, home-nursing, and the like. In order to make the teaching as useful and practical as possible, it is required that the work of these schools should be co-ordinated with that

child means an absolute loss of potential capital and productive power, we see the appalling loss that such a high death-rate amongst children involves to the nation.

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of baby clinics and infant dispensaries, and of day nurseries and nursery schools, if there are such in the district.

The problem confronting the schools for mothers and all those other institutions is to save the twenty or thirty per cent. of children that die in early years, to avoid tuberculosis, rickets, and the like, that cause so large a part of the diseases of later life. If they do these things they will be worth all the money and labour spent on them, and they will help to rear a healthier manhood and womanhood in the nation. Nevertheless, they point to a defect in our educational system. It is rather late in the day to be giving instruction when women are either mothers or expectant mothers. The proper time for this is in continuation classes and before marriage.

Increased attention by school authorities to the health of the young in the ways we have indicated in these chapters is of prime importance for the progress of society. The average length of life is now probably double what it was in this country a century ago. Think what this means to the working power and happiness of the nation. By better health-teaching and physical training of our immense school population we could still further increase the average span of life, we could check contagious disease, and we could diminish the amount of sickness, suffering, and failure in the world. The

school must help to create still higher ideals of health and physical efficiency. Every individual is a temporary depository of a part of the force of the race, and it should be an aim of education to preserve this force in its most efficient form for the good of the individual and of society.

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these defective children are leading to important results. They are enabling many of the unfortunate children to become, to a greater or less extent, useful and efficient citizens instead of being permanent burdens upon their friends or the community, and they are protecting society from some who, untrained and uncontrolled, would grow up to be criminals or wastrels. 'In industrial processes it has become the commercial ideal that there shall be no residue left that would go to waste, the secondary product or by-product now often assumes greater importance even than the primary. Likewise, the apparently subnormal child may be developed into a useful by-product, and among the subnormal children there may be found such as will become leaders if developed in the right direction. And if it were only that the injurious residues are rendered harmless, as is done in factories with the greatest care, and as ought to be done in our educational institutions with equal care, society will be saved an enormous amount of damage. When once we will apply the same painstaking, minute, and completely organised methods which are followed in commerce and industry to the process of moulding the human material, we shall eliminate from society the greater part of those injurious elements which now threaten its health and even existence' <sup>1</sup>

In addition to the open-air schools dealt with in a preceding chapter, there are now in nearly all

<sup>1</sup> M P E Groszmann, Proceedings of the Department of Superintendence, p. 22 of *Report of the National Education Association for 1910*.

large centres Special Schools<sup>1</sup> for physically defective children—for the deformed, for cripples, for children suffering from diseases of the bones or joints, from heart disease, from epilepsy—indeed from anything that unfits them from mixing with the healthy children in ordinary schools. They are collected in ambulances and omnibuses and driven to school in the morning and taken home again in the afternoon. A midday meal is provided, for which a small sum is charged, but in very necessitous cases no charge is made. These children are so improved in body and educated and trained in mind in the special school, that when they grow up they are able, in the majority of cases, to be either wholly or partially self-supporting; but others, probably about thirty per cent., either do not live or are unable to support themselves.

The first schools for physical defectives were, as we have already said, the so-called asylums for the blind and the deaf. The blind are no longer considered helpless dependents on eleemosynary aid. They are now educated and trained for economic pursuits like other children. It is cheaper to educate them for ten or twelve years than to keep them for life in charitable institutions, as used to be the case. The feeling of helplessness and almost total dependence upon others was the cause of more unhappiness to them than even the lifelong darkness to which they were condemned.

In some cases, especially in other countries such

<sup>1</sup> The term 'School for Defectives' is often used, but it is obviously harsh and objectionable.



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as the United States and Germany, the blind are educated in the ordinary schools alongside seeing children. They are taught to read and write and count by the Braille method, and with a little more individual attention do the same lessons as the seeing pupils. But the dangers to which, on account of their blindness, they are exposed on the way to and from school and in the playground, and other difficulties of an educational kind, render it advisable upon the whole that the blind should be taught in special institutions. Methods suitable to their blindness are adopted, and a large amount of handwork with a view to some particular industrial pursuit is included in the course of instruction. Suitable outlets for the blind are found to be piano-tuning and the teaching of music, and some pupils are trained for these occupations. Unfortunately many of the callings formerly open to the blind are being crowded out by modern inventions and the application of machinery to industry. As the pressure upon the blind increases we must give them fuller and richer education, and more highly trained intelligence to enable them to cope with modern conditions. The most highly gifted and energetic among them should have opportunities for preparing for suitable forms of professional life.<sup>1</sup>

With the deaf-and-dumb, also, it is becoming increasingly difficult to earn a living. The remedy

<sup>1</sup> New York State has passed a law that any blind student attending a university, college, or technical institution, other than a school for the blind, should have a reader provided for him at a salary not exceeding £80 per annum.

is to increase their intellectual training and to give them better vocational training. As in the case of the blind, the best service we can do them is to give them an education higher, more practical, and more vocational than the ordinary day school provides, and more general than the institutions in which they are trained now give them. There should be an opportunity provided for the most gifted amongst them to receive a higher education in an institution in this country, like the Gallaudet College for the Deaf in the United States.

In the popular mind there is no distinction between the deaf and the deaf-and-dumb. As a matter of fact, comparatively few of the deaf are dumb—that is, unable to articulate. The organs of speech are intact in almost every case, but the child born deaf does not hear what is said to him, and consequently does not learn to speak by imitation of sound. If the organs are not exercised the muscles atrophy. As soon as parents learn that their child is deaf they should speak to him as to a hearing child, they should train him perseveringly to move his lips in imitation of theirs, and persistence will lead, unless there is an organic defect, to the production of a natural voice. It may be too late, and in any case it will be harder, to do this when the child goes to school.

At school the child should be taught, as far as possible, to speak and interpret speech by the oral method and not by finger signs. This requires infinite patience, especially on the part of the teacher, but it is worth while. In watching the facial movements

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attention from a teacher of great skill and experience, and can follow a curriculum specially suited to each case. In this way only can we make the most of the personality and aptitudes of these children. Some may after a time be able to join the work of the regular classes. Those who go to work before they are able to complete the elementary school course should be required to give part-time attendance at continuation classes until they are sixteen or seventeen years of age. This will make a vast difference in the efficiency of their lives.

## CHAPTER XIX

### EDUCATION OF DEFECTIVE CHILDREN (CONTINUED)

NEXT we come to the mentally defective children proper—those whose brain development is arrested at a certain stage before or after birth. The care and control of these have been a matter of great concern to all interested in social welfare. If neglected, they form a large percentage of our pauper, delinquent, and criminal classes. It has been stated on good authority that they are increasing relatively to the normal members of our population. It was estimated by the Medical Department of the Board of Education that in 1913 there were about 36,000 mentally deficient children in England, one-third of whom were under no control and were receiving no training. Many of these were growing up to be criminals or ne'er-do-wells, to become a permanent burden upon the community, and to end their days in gaols, workhouses, and asylums. This state of affairs if allowed to continue would be a menace to our civilisation and a hindrance to social progress.

But our legislators are now fully alive to the need of dealing with the problems connected with

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mentally defective children. Within recent years Parliament has passed the Elementary Education (Defective and Epileptic Children) Act in 1899, the Defective Children Act in 1906, the Mental Deficiency Act in 1913,<sup>1</sup> and the Elementary Education (Defective and Epileptic Children) Act, 1914.

Section 1 of the 1913 Act classifies the mentally defective into—

- (a) Idiots ; that is to say, persons so deeply defective in mind from birth, or from an early age, as to be unable to guard themselves against common physical dangers.
- (b) Imbeciles ; that is to say, persons in whose case there exists from birth, or from an early age, mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.
- (c) Feeble-minded persons ; that is to say, persons in whose case there exists from birth, or from an early age, mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or that, in the case of children, they appear to be

<sup>1</sup> A similar Bill applicable to Scotland was passed in the same year—namely, the Mental Deficiency and Lunacy (Scotland) Act, 1913.

permanently incapable of receiving proper benefit from the instruction in ordinary schools.

- (d) Moral imbeciles ; that is to say, persons who from an early age display some permanent mental defect with strong vicious or criminal propensities on which punishment has had little or no deterrent effect.

The education of all these was considered hopeless before the great pioneer work done by Edouard Seguin. His volume on 'The Moral Treatment, Hygiene, and Education of Idiots and other backward Children,' published in 1846, is probably the greatest work ever written on the subject. By idiots in the title of his book he means those whom we would now call feeble-minded. He said that by his methods 'Idiots have been improved, educated, and even cured ; not one in a thousand has been entirely refractory to treatment, not one in a hundred has not been made more happy and healthy ; more than 30 per cent. have been taught to conform to moral and social law, and rendered capable of order, of good feeling, and of working like the third of a man ; more than 40 per cent. have become capable of the ordinary transactions of life under friendly control, of understanding moral and social abstractions, of working like two-thirds of a man ; and 25 to 30 per cent. have come nearer and nearer the standard of manhood, till some of them will defy the scrutiny of

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good judges when compared with ordinary young men and women.'

For the idiot and imbecile, as defined in the Act of 1913, some improvement here and there may be possible, but no education in the ordinary sense of the term can be given; and the educational authority hands over the responsibility for their supervision to a Local Control Authority, which is empowered by the Act to send them to an institution or to place them under guardianship. As some one has said, these unfortunates remain children all their lives—children in intellect and will, though adults in stature and instincts.

In the case of feeble-minded children on the borderland of normal development it is otherwise, and the 1913 Act lays upon local educational authorities the duty of providing for them special schools or classes in which, from seven to sixteen years of age, they may receive an education and training suited to their special needs. The educational authorities, especially those administering districts with large populations, are on the whole loyally doing their best to discharge their new duties. The education of the feeble-minded should be given, wherever possible, in open-air schools. It should consist mainly of a well-organised scheme of motor-training and manual occupations, especially gardening, correlated with speech and language training. By giving these unfortunate children such a training, it may reasonably be expected, in view especially of the results

obtained by Seguin, and by Madame Montessori in our own day, that the mental condition of nearly all will be improved, and that many will be trained to do work by which they may become in some degree self-supporting, even although they may never be able to take care of themselves without direction.

Moral imbeciles as defined by Section 1 (*d*) of the Mental Deficiency Act of 1913 must be carefully segregated from other children. Their vicious or criminal propensities would render them a source of danger to feeble-minded children. Nor must they, on the other hand, be placed in schools along with incorrigibles and truants. Because of their lack of self-control, and of their not having passed beyond the imitative stage of mental development, they would easily be led astray by their nimbler-witted and stronger-willed fellow pupils. Not much can be done with them, especially in pronounced cases, which fortunately are comparatively rare, and an institution in which continuous care and oversight can be exercised over them for life is the only suitable place for them, and the only means of preventing them from becoming a criminal charge upon the community.

In this country the Special Schools for physically and mentally defective children are partly day schools, and partly institutions in which the whole of the life conditions of the children can be controlled. The Special Day School has many



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advantages, and is to be recommended for the majority of cases. It provides a proper division of labour and responsibility between school and home. It permits the child, while receiving mental and physical training in the school, to enjoy the socialising influence of his home if it is not altogether bad. Special Day Schools are the best training ground for the deaf, the cripple, and the educable feeble-minded.

In institutions, on the other hand, the children are separated from their family and friends, their movements are greatly restricted, and they are isolated and compelled to associate for the most part with those who are afflicted in like manner as themselves. And at the end of the school period the change from the artificial environment of the institution to the bustling life of the world is great and perplexing. Yet institutions are necessary for severe cases of mental and moral deficiency, and for all who need continuous care. In all cases in which there is any hope of improvement the cottage system of institutional life is the best. It reproduces many of the advantages of home life, it makes it easy to classify the children into suitable groups, it brings them into healing contact with nature, and it provides them with plentiful opportunities of outdoor work.

The real crux of the problems connected with the treatment of the mentally defectives comes when they leave the Special Schools at the age of sixteen. Public control over them ceases just when they are most in need of supervision and guidance, and

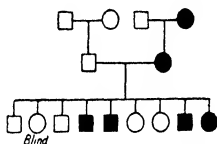
the results of years of effort are wasted by subsequent neglect. Experience has shown that only a small proportion of even the higher grade feeble-minded become partially self-supporting. If the feeble-minded do not get protection and care at this critical period many of them fall victims to their tendency to drift into pauperism, immorality, and crime. Feeble-minded girls, if unprotected, propagate their kind, and are a special danger to the community.

Several local educational authorities appoint After-Care Sub-Committees for mentally defective children with a view to promoting the well-being of former Special School pupils, and to assisting them to get suitable employment. Experience in this connection is proving that voluntary effort is not enough, and that compulsory education should be followed by compulsory registration and supervision of all mental defectives beyond school age. They should be released only to parents or guardians who are able to take care of them and be responsible for them. In every case in which it is thought necessary they should, in terms of Section 2 (2) of the Mental Deficiency Act, 'be sent to an institution or placed under guardianship.'

The most suitable form of institution for mental defectives over sixteen years of age is probably the colony home, where the inmates can get employment in simple industries, and careful oversight and attention, and where their handing on the poison of feeble-minded-

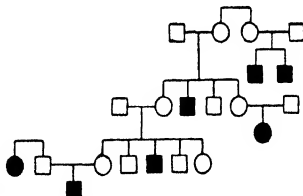
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ness to offspring can be prevented. It has been stated that eighty per cent. of the feeble-minded are so by inheritance. The following family histories investigated by E. J. Emerick, Superintendent of the School for the Feeble-minded, Columbus, Ohio, U.S.A., show the necessity of preventing the marriage of the mentally defective, whether male or female.

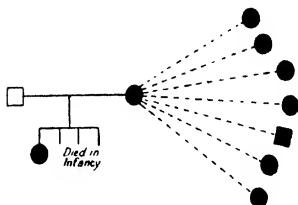


This chart shows the effect of feeble-mindedness in the mother, while the father's family history is good. The result of this man's marriage with a feeble-minded woman is one blind child, four feeble-minded, and four normal children. The chart also shows a case of feeble-mindedness of three generations transmitted through the mother.

*NOTE.*—In the genealogical charts, square indicates male, circle indicates female, plain squares and circles indicate normal mentality, black squares and circles indicate feeble-mindedness.



This chart shows clear evidence of a feeble-minded heredity. Reading from below upwards, the feeble-minded boy had on the maternal side a feeble-minded uncle, great uncle, one feeble-minded second cousin, and two feeble-minded third cousins. On the paternal side there was a feeble-minded aunt.



This chart shows the result of a feeble-minded woman being left without protection; she had seven illegitimate children all feeble-minded. After her marriage she had a feeble-minded girl, and other three children who died in infancy before their mentality could be determined.

Teachers of defective children should have a real bent and liking for this special kind of work, otherwise they will not attain high success in it. They should have a quiet and kind yet firm manner, and infinite patience and sympathy with the unfortunates they are teaching. It is desirable that they should have the same education and general training as ordinary certificated teachers, but in addition they should get a special training for teaching the kind of defectives among whom their work will lie. They must know what mental deficiencies mean, how they are caused, and the technique and methods of dealing with them in the best schools or institutions in the country. After entering upon their work they should be progressive and living teachers, and interested students of education, particularly of the difficult problems connected with their special work. As

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some one has said, 'We need forward teachers for backward pupils.'

All the suggestions we have made in these two chapters will only relieve to some extent the heavy handicap of those unfortunate children. If the suggestions are followed they will help to make the lives of the children thus afflicted as secure and comfortable as possible, and to make the most of their working capacity for the common good. Many problems in connection with the classification and education of mental defectives call for further study and investigation. Above all, we require to know more about the causes of these deviations from normal mentality, and the methods of preventing their operation. It may be found that certain forms of feeble-mindedness will be remediable when we know more about the skull, about disturbances of nutrition, and about the effects of tuberculosis, alcoholism, and immorality. These are problems that concern not only the educational and medical professions but all who are actively interested in social progress. The schools for defectives may thus become educational clinics in which valuable knowledge will be gained that will benefit not only the subnormal but the normal child.

## CHAPTER XX

### WIDER USE OF SCHOOL PLANT

THERE is a growing opinion that our public elementary school buildings and school plant are not utilised at the present time as fully as they ought to be for the betterment of society. The reasons for this opinion are twofold. In the first place, it is maintained that as the buildings and their equipment represent a vast expenditure of public money they should not be allowed to stand idle for so much time when, outside of school hours, they might be used in many ways as centres for the social, civic, and cultural uplifting of the community. In the second place, there is arising a broader conception of the scope of education. It is mainly, but not solely, concerned with the instruction and training of the young. Its functions extend to every stage and condition of life. Almost every scheme which has for its object the improvement of human conditions is, in one way or another, educational, and the schools as public property should be used in support of it, in so far as doing so does not interfere with the main purpose for which they were intended. We shall consider briefly in this chapter some of the

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more extended services for which the school plant might legitimately be utilised.

For the sake of the children who are unfortunate in their home conditions, or who live in poor or overcrowded districts, the school playgrounds should be open for play, games, and drill out of school hours (see Chapter XV. p. 178), and some of the school buildings should be used for vacation schools. Perhaps no city is doing so much to develop the playground movement as New York. The writer visited that city in the summer of 1905 to become acquainted with what was being done, and he found that the Board of Education of New York kept 110 school playgrounds open during the summer vacation from 1 to 5.30 P.M. daily except on Sundays. There was an average daily attendance of 70,000 children, and over 500 supervisors and teachers were required.

In the schools utilised for this purpose, not only the playgrounds but the school libraries and some of the class-rooms were open. In one of the vacation playgrounds in the east end of the city there were 2000 children. At 1 o'clock a march was played, and the children fell into line and marched past and saluted the flag. Next, two patriotic songs were sung, then the order to break ranks was given, and the boys went to one side of the playground and the girls to the other. Kindergarteners amused the youngest children. Some of the young children shovelled and carted sand, and had doll parties. The boys and girls separately engaged in free play, such

as swings and ball games. Some of the girls were taught dancing, and the boys had the use of the swimming pond for that afternoon. Boys were playing base-ball, some practising gymnastics, and in the roof playground teams of boys and a teacher were playing basket-ball. When the children were tired they could go, if they cared, to a room where quiet games were going on, or to the school library to read story or picture books.

Seven of the vacation playgrounds were on the piers which jut out several hundred yards into the Hudson, and form the deep-water docks with which for miles the banks of that river are lined. The piers are occupied by covered stores, and the playgrounds referred to are on the flat roofs of these stores. They are delightful places during the sweltering heat of summer, as they are swept by cool breezes from the river; and a splendid view of the traffic in the river channel can be obtained from them.

Many children in the poorer districts of our towns have difficulty in finding amusement or pleasant occupation during the summer vacation, and they actually begin to long for the end of the holidays. There is no pleasant seaside holiday for them. They have to spend their holiday in the streets, often to their harm. To help these children, and to remove them from the demoralising influences of the streets, a movement has been started in this country in recent years to institute vacation schools in the poor and overcrowded districts of our large towns. The movement



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is of purely American origin. It was started in Boston in 1885, and now there is not a single large city in the United States without its summer vacation schools. In the summer of 1905 the Board of Education of the City of New York provided fifty-eight vacation schools, having in them 40,000 children, and requiring for their management 760 teachers.

The first vacation school in England was opened in London in 1902 at the Passmore Edwards Settlement, Tavistock Place.<sup>1</sup> The credit of its initiation is due to Mrs. Humphry Ward, and the money for its support was subscribed by friends. The organisers of this school state the purpose for which it was started in a passage worthy of quotation for the inspiration of all workers in similar fields in the future :—

‘The school aimed at giving the children something to do, in place of roaming listlessly about in street and alley, with nothing to tempt them to action save the ever-present opportunity of mischief. Children such as we have cannot amuse themselves. They have little imagination or initiative, and, as a rule, unless acting under guidance, fail to give their desire for amusement and occupation suitable shape. They roam about, suffering from a peculiar childish *ennui*, and actually long for the return of the normal school days and the cessation of the wearisome

<sup>1</sup> Those desiring fuller information than is given here regarding Vacation Schools in England should consult vol. 21 of the Board of Education's *Special Reports on Educational Subjects*. They should also read the pamphlet on *The Play-Time of the Poor*, by Mrs. Humphry Ward (Smith, Elder & Co.).

holidays. The purpose of the school was to change all this. It sought to satisfy the hunger for occupation by setting the children something to find out, or something to do. It sought to care for the physical well-being of the scholars by carefully organised exercises. It sought to raise the children's ideal of morals and conduct by direct and indirect instruction. It sought to show the children that coming to know and learning to do are, in themselves, some of the truest of pleasures. It sought to afford pleasure chiefly to those children who were doomed, from one cause or another, to remain in London throughout the vacation, and so to go sea-less, fresh-air-less, and joyless.'

This school has been so successful that it has been repeated every summer since it was started, and similar schools have been opened by voluntary associations in a few other towns. As a result of these successful experiments, the Education (Administrative Provisions) Act, 1907, allowed local educational authorities to establish such schools during the holidays or at any other time, and to give assistance to voluntary agencies for the same purpose. London County Council has, since the passing of the Act, opened several of these vacation schools.

Curriculum is too formal a word to apply to the work done in a vacation school. To continue the same sort of instruction as in the elementary school would defeat the whole purpose of the vacation. The practical note is very prominent, and the tendency is to give no book lessons whatever in the school.

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The writer noted the following manual occupations going on at one or other of the vacation schools in New York :—woodwork, basketry, venetian and bent iron work, fretsawing, whittling, cobbling, work in burned wood and leather, sewing, embroidery, crocheting, millinery, cookery, laundry, and other domestic work, such as laying the table, waiting at table, sweeping, dusting, scrubbing, washing dishes. Some of the boys were repairing broken house furniture they had brought with them, Some of the girls were cutting and sewing dresses, and trimming hats for themselves. In one school a nurse was giving instruction to the older girls in bathing, feeding, and care of babies, nursing the sick, and first aid to the injured.

So far as one could see, the idea underlying all the manual occupations was not to give set tasks, but to lay hold of some interest in the child, and to enable the child to give expression to his own ideas. No time was spent in making fancy joints and sections in woodwork, but rather in making such things as boys want to make. So, too, with the girls, they were set to making dresses or hats or doll's clothes instead of learning a dozen different stitches. Physical training, music, and drawing also formed important parts of the work of these schools. A good deal of time was spent by the children out of doors, and was occupied in games, and excursions to the parks to interest the children in birds, flowers, and trees.

Even from this brief outline of the work of vacation schools it will be seen that they may be made a valuable

aid to social progress in poor and crowded communities. They remove children from the evil influences of the street, they give them healthful and recreative instruction, and they prevent the holiday time from undoing to a greater or less extent the mental, moral, and physical work of the ordinary school. From the freedom with which they are conducted they afford great scope for trying innovations in education, and thus they may serve, to some extent, as experimental schools in which educators may have an opportunity of testing new ideas cautiously, without interfering with the work of the ordinary schools.

The importance of the right use of leisure has been a common theme with sages and moralists of all ages. It was no less a person than Aristotle who said that the end of life and of education was the noble enjoyment of leisure. George Eliot in one of her books writes: ' Important as it is to direct the industries of the world, it is not so important as to wisely direct the leisure of the world ' ; and W. H. Taft, while President of the United States, said : ' It is in their idle moments that the young contract the habits that lead them downward, and it is in their leisure that they can make their character what it ought to be.'

One of the most valuable outcomes of the education a person has received should be his desire and ability to occupy his spare time in such a way as will benefit himself and others. Tried by this test, our system of education is in too many cases found wanting, for the free hours

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of a considerable proportion both of youths and adults are filled with pleasures which are frivolous and harmful. This is causing anxiety to many observers. The Lord Chief Justice of England said recently that 'second only to drink, the real cause of crime is the difficulty of finding healthy recreation and innocent amusement for the young among the working classes.'

The school must do more in co-operation with the other institutions, especially the home, for the solution of this problem. Our continuation schools, public libraries, museums, art collections, dramatic societies, and courses of lectures and debates on literary, social and civic questions, are all educational agencies which are tackling the problem with a considerable measure of success. But unfortunately they often do not reach the very ones we need to influence. There should be provided somewhere in our educational system social and recreative activities, or what the Lord Chief Justice called 'healthy recreation and innocent amusement for the young' who have left school. The desire for play and for social intercourse is natural in young men and women; we should frankly recognise it, and utilise it for educative purposes. If we fail to do this we shall help to drive the young, at a difficult and critical period in their lives, to the evil influences of the streets. To elevate recreational life and direct it into proper channels should be the guiding aim of every one interested in the young men and women of the working classes.

America is taking the lead in connection with

what is called the 'social centre movement,' that is, a movement for using a number of schools in the evenings for supervised games, and dancing, and educative recreation. The social centres do not provide entertainment only. They have clubs for the discussion of social, political, and literary questions; they have study and library rooms, and rooms for quiet games. But naturally the gymnastics and playing games and dancing attract most attention.

In New York in the summer of 1905 there were eleven schools<sup>1</sup> used for the purpose, with an average attendance of about 2000 at each. The schools were open for eight weeks from 7.30 to 10 every evening except Sunday. In one of the schools visited there were over 2000 youths up to about twenty years of age, and many parents were looking on. In various rooms playing games and dancing were going on, while on the roof there were hundreds of young men and women dancing to the music of a brass band. The entertainment closed at 10 o'clock exactly, with the singing of the patriotic song, 'My country, 'tis of thee, Sweet land of liberty.' No one who has visited these social centres and seen them at work can doubt that they remove thousands of youths from the temptations and dangers of the streets, and help to give them a love of pure recreation.

Other American cities are doing work on somewhat similar lines. The United States Bureau of Education

<sup>1</sup> The writer visited the Social Centres in New York again in the summer of 1909 and found them still further increased in number.

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places such value on the movement that it proposes to send out bulletins describing the progress of social and recreation centres throughout the country.

Britain has not been altogether behind in this work. For over twenty years there has been in London a society, presided over by the Countess of Jersey, with the object of providing in over eighty of the London County Council school buildings recreative evenings for the children attending schools in poor districts. About 1500 voluntary workers take part in the work, and the children engage in play, games, singing, and various recreative employments. Similar work is now being done in other towns in England.

The success of work of this kind depends to a large extent upon the voluntary workers who are willing to direct and to take part in it. In this country there is generally no lack of men and women animated by the ideal of social progress and ready to labour in its service.

As long as this is the case, it is not necessary that local educational authorities should themselves institute recreation centres, but they should readily grant the use of their buildings to accredited associations for the purpose. This is what is done by the Education Committee of London County Council, and it is yet another way in which the wider use of school property may contribute to social progress and to the general well-being of the community.

## CHAPTER XXI

### TEACHERS AND SOCIAL PROGRESS

IN the preceding pages we have considered some of the evils that are affecting so large a proportion of our people, and we have tried to show that, while it is futile to place exaggerated hopes on education, and to look to it alone to bring about the social millennium, it can do more than any other agency to remedy our social ills. Social progress cannot be secured by legislation alone, but by the slower and surer plan of educating the people, and of introducing into the schools the reforms we wish to introduce into the life of the nation. Education is, therefore, not the comparatively simple thing it was even a few years ago. Nearly every moral and social movement at the present day is setting towards education. Like every function of the State, it is becoming more paternalistic, perhaps even, some would say, more socialistic in tendency. Our future welfare is so dependent upon the nurture and training of the young that the State cannot allow even the parents to deprive them of their natural right to education, and to protection from moral and physical harm.



All this is placing heavier responsibilities on the teacher ; it is demanding more highly trained intelligence and greater breadth of outlook. Every schoolmaster should be a specialist, doing work that requires a special training and aims at specific results ; but he must also extend his vision beyond the school, and all the absorbing work and studies connected with it, and see the relation of his work to the throbbing life beyond the schoolroom. It was mainly because schoolmasters in the past, good and devoted men though they were, did not do this, did not cultivate wide interests, that there has come to be associated with teaching the narrowness generally connected in the public mind with the words 'schoolmaster,' 'dominie.' Dickens in 'Hard Times' speaks of the matter-of-fact teacher as 'Thomas Gradgrind, Sir, a man of realities, a man of facts and calculations.'

Every teacher should try to understand how education is related to other forms of social endeavour, and how education can really contribute to social betterment, and can be made one of the main instruments of society in realising its destiny. He should try to get a sense of the whole of which his work is a part, and see the relation of his work to that of other men. He should regard himself as a social worker co-operating with others in the upbuilding of a higher life among the people, and in promoting a better civilisation. He should be dominated by a spirit of social service. He should have a keen sense of the obligation that rests on him to utilise to the utmost his special opportunities to counteract, in

such ways as we have indicated, the harmful influences of our social and industrial system, to diminish the human wreckage thrown up by it, and to attack the evils of society at their source. If a teacher is not constantly endeavouring to achieve these results he is not performing his full duty to the community.

The school has as its chief function the mental, moral, and physical training of the child, but it is also one of the main instruments of society for securing its upward progress. Hence every teacher should study the problems of our social, civic, and industrial life, and the conditions to be met by society at the present time. During his course of training every teacher has to study psychology, so that he may know the principles of mental development. To this he should add a study of sociology that he may understand the laws of social development. Psychology and Sociology are the chief contributors to the Science of Education, and a knowledge of them should be part of the professional equipment of every teacher. Sociology should decide to a large extent the suitable subject-matter of various curricula, and psychology should determine the ages at which the subjects should be taught, and the form of their most effective presentation.

The teacher's course in the history of education during his training should be such as to lead him to see the school in its proper relation as one of the most potent factors in the social and industrial progress of the country, and the teacher as a social agent performing an essential work for society. There should

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also be introduced into his training, courses in social psychology and the sociological aspects of education. If this were done, the function of the school in society would be better understood, a deeper meaning and purpose would be introduced into the curriculum, the teacher's interest would be quickened, and he would perhaps be sustained by a livelier sense of his unique opportunities as a servant of society.

Along with these theoretical courses there should go some practical training in social work. Our University Settlements and Social Settlements in the slums of our cities should have, in addition to their other work, educational activities carried on to a large extent by students in Training Colleges for Teachers. The scope for work of this kind is well-nigh boundless. A part of such a Settlement should generally be a Kindergarten, for hardly any other agency can do so much good for neglected children, or so much to influence the homes from which they come. It would be well if every large Training College could support by the voluntary contributions of its members a Kindergarten or Nursery School as an educational mission in a poor district of the town in which the College is situated.<sup>1</sup> The students from such a College would be more likely to become enthusiastic and public-spirited teachers, keenly alive to the problems of society.

<sup>1</sup> This is no pious opinion. It is what is being done at the present time by present and former students of the Edinburgh Provincial Training College, see p. 152.

At the present time there is an absence of adequate facilities in nearly all our Universities for the study of social philosophy and social economics, and for the training of social workers whether as volunteers or officials, and of those who desire to prepare for municipal or national administrative work. Every thoughtful observer must be struck by the wide variation both as to purpose and procedure in the many national and local schemes brought forward from time to time for social betterment. In the absence of such thorough study and preparation as we have indicated, it is unsafe to attempt such social innovations and to try to guide the course of the underlying laws and forces at work. It should be one of the duties of a University to teach the principles of Social Science, to show how they may be applied to current social problems, and to extend our knowledge of the forces at work shaping society by ascertaining, collating, and reducing to law known facts concerning them.

In several of our Universities this function of a University is recognised. For instance, London University has a School of Economics and Political Science; Birmingham University has a School for Social Study and for Training for Public and Social Service; Liverpool University has a School of Social Science and of Training for Social Work. These Universities issue Diplomas to the successful students in Social Science. In three of the Scottish Universities similar work is being done to a more

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limited extent; in St. Andrews University there is a Lectureship in Sociology; in Aberdeen University a Lectureship in Political Science and Sociology; and in Glasgow University a Lectureship in Social Economics, and a School of Social Study and Training under the directorship of a University Lecturer.

Teachers are living in a time of special difficulty and responsibility, but they should be sustained by a growing sense of the power of education to remedy social diseases, to diminish the amount of wickedness, distress, and failure in life, to spread knowledge, self-helpfulness, and hope. No profession has more intimate or vital contact with the minds and souls of men, or has greater power to hasten social regeneration and social progress. No profession consequently is rising more steadily in public esteem; and the time is coming when teaching will be, as Plato argued, the profession held in highest honour in the State. The rate of progress will depend upon whether the members of the profession are putting it to the largest uses in the service of mankind.

## CHAPTER XXII

### CONCLUSION

THE study we have made shows us that the diseases of society are not inevitable. We have the knowledge and the power to overcome them if we have the will. But the task is not one that can be accomplished quickly or easily. It involves nothing less than the difficult problem of preventing ills in society, instead of seeking to cure them after they have arisen. Just as in medical science prophylactics are supplanting therapeutics in coping with physical ills, so in social science we are aiming more and more at attacking the diseases of society at their source rather than relieving them after they have manifested themselves. We are accordingly extending and developing the work of the various preventive agencies of which the chief is education. The proper extension and wise exercise of the functions of education are at the root of social progress.

Within the last few decades the duties of local educational authorities have been greatly extended on the social side. These authorities have been charged

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with the responsibility of the medical inspection and treatment of school children, and of the feeding of necessitous children. The Poor Law Authorities have failed to get at the causes of destitution in children and to prevent their operation. In the same way, the administration of Industrial and Reformatory Schools by the Police Authorities—the Justices of the Peace in counties, and the Municipal Councils in boroughs—has failed to cure, far less prevent, delinquency in the young.

Consequently there is now an almost universal consensus of opinion that the entire responsibility for the care and training of children (except the invalid and the imbecile) of school age should be placed under one authority—namely, the Educational Authority.<sup>1</sup> In this way, much ineffectiveness and wasteful overlapping would be prevented, and an opportunity would be given of enforcing parental responsibility. With its great teaching force, its doctors, nurses, care committees, and attendance officers, our educational system has unrivalled means of dealing successfully with the physical, moral, and economic disabilities that start in childhood and persist through life.

The problem of finding the money to maintain the educational system of the future is not an easy one. The extensions and reforms we have suggested certainly mean a considerable increase in the

<sup>1</sup> A Departmental Committee on Reformatory and Industrial Schools in Scotland in its Report issued in May 1915 recommended that the administration of these schools should be transferred from the Scottish Office to the Scotch Education Department.

expense of national education. But even then the expenditure will be only a small fraction of what we are spending (not unnecessarily, as recent events in connection with the great European War have shown) on preparations for war in times of peace. We have immense national resources,<sup>1</sup> and with wise economy in other directions it should be possible for us to spend more on education.

Present-day conditions demand a greater development than ever before of the powers of the individual, and therefore a larger expenditure on the provision of opportunities for the purpose by the State. 'Modern life makes imperative greater collective action, and increases the duty and responsibilities of the State. Greater relative and absolute portions of the national income must be devoted to collective betterment. The school is one of the chief instruments by means of which the duty of the State in modern industrial society is discharged. Not the destruction, but the conservation, of individual development and welfare is the aim.'<sup>2</sup>

Economists and students of taxation are pointing out new and important sources of revenue which would be partly available for the increased expenditure on education. Moreover, there should be

<sup>1</sup> The late Sir Robert Giffen, one of the greatest statisticians of his day, said: 'There is enormous wealth to draw upon with a gross income-tax income of about 1000 millions and probably an amount not coming under the Income Tax of 2000 millions.' We do not suggest, of course, that all the additional money required for education should come from this source.

<sup>2</sup> *Education and Industrial Evolution*, by F. T. Carlton.



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a readjustment of the grants to education from imperial and local sources. The burden on local education rates has been greatly increased by new duties imposed by recent legislation, and it must be relieved. In addition to this, various economies and reforms should be carried out. The working expenses of the educational system must be diminished by the simplification of the machinery of local and State administration and inspection. This is particularly true of Scotland with about 40 Secondary Education Committees and 970 School Boards, with their small army of officials—clerks, treasurers, and auditors. Large sums, too, could be made available for modern needs by the revision of educational endowments which have been diverted from their original purpose, or are no longer suited to present-day requirements.

Any net increase in the total expenditure on education will, we may be assured, be more than counterbalanced by the nation's reduced bill for drink, crime, ill-health, and destitution. It will be more than compensated by the increased productive capacity of our people due to their better health and greater vigour, their increased skill, their higher moral qualities, and the prolongation of their average working life.

The war at present devastating Europe will for generations increase the importance of education as a factor in social progress. After the war solicitous

care of public health will become a cardinal feature of social policy, and more attention than ever will be paid to everything connected with the health of the young. Increased economy of industrial force, too, will be necessary. Thousands of workers trained in manufactures and commerce have been lost in the war, and the prosperity of the country will only be restored by the increased efficiency of those who remain. We must give the children, who will take the place, in a short time, of the workers who have fallen in the war, a longer and better education, and a more practical training—a training that will develop their mental powers, and be at the same time a real preparation for life. The gap between the elementary school age and the threshold of manhood and womanhood must be filled by an adequate system of continuation education, including more thorough trade and technical education. It is the children at present being educated in the schools who will bring to fruition in the next generation the possibilities of the coming peace.



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such origins it will be well to stop and consider the results of a system which was based on the lack of commerce. With regard to the main product, food staples, the result was an alternation of *waste* and *want*. A good year brought a surplus for which there was no market outside the village, and which could not be worked up inside for lack of manufacturing skill and implements. A bad harvest, on the other hand, meant serious suffering, because there was no opportunity to buy food supplies outside the manor and bring them to it. Nearly every year was marked by a famine in one part or another of a country, and famine was often followed by pestilence. Diseases now almost unknown in the civilized world, like leprosy and ergotism or St. Anthony's fire, were not infrequent. The food at best was coarse and monotonous; the houses were mere hovels of boughs and mud; the clothes were a few garments of rude stuff. Nothing better could be procured so long as everything had to be produced on the spot and made ready for use by the people themselves. Finally, these people were coarse and ignorant, with little regard for personal cleanliness or for moral laws, and with practically no interests outside the narrow bounds of the little village in which they lived.

**38. Exceptional instances of higher organization of industry.** — These conditions existed all over western Europe, and may be taken as typical of the period about the year 1000. Though they determined the commerce, or better the lack of commerce, at this time, they were not absolutely universal. Great feudal princes and great monasteries owned each a considerable number of villages or manors, and tried to introduce a more advanced economic system among them. A great lord would have his shoemaker and tailor, his saddler, swordsmith, etc.; and would have a considerable number of women gathered in a sort of factory making clothes. It is noteworthy, however, that the difficulties of transportation were so great that for a long time to come it was not practicable to concentrate the food supplies of a large group of manors in one place, and the owner would have to go to the

food instead of having it brought to him. So we read of the kings and princes being always on the road, traveling with court and retinue from one manor to another, eating up the surplus that had accumulated and then moving on.

**39. Common wares of commerce in the period of the manor.**

— Absolute self-sufficiency was impossible; it was the ideal at which the managers of the manor aimed, but there were few manors which could supply all the necessities of life. The list, however, of articles which had to be procured by commerce with the outside world was small. Salt was one item, of special importance as it was so difficult to keep live stock through the winter, and the animals had to be killed and salted down. Iron was necessary for various implements, though it was so expensive that it was spared in every possible way. Other articles had to be bought as occasion arose, stones for the mill or tar to keep the murrain from sheep. These wares were essential to existence; by channels so obscure that they cannot now be traced they reached the places where they were wanted, and were purchased with part of the manor's scanty surplus. Cattle and horses formed also, as is natural, common objects of exchange.

**40. The slave trade in Europe.** — One ware which had long been an object of commerce was of especial importance in the period just after the fall of Rome, and, indeed, for some time later; this was slaves. The slave trade extended over all Europe, and had great markets on the Mediterranean, the North, and the Baltic seas. Merchants drove troops of slaves in chains from one country to another, or exported them in lots of 100 or more. In the slave markets of the Baltic as many as 700 are said to have been put up for sale at once. A number of English laws regulated the slave trade of the time. It seems to have been largely confined to convicts, but a law of Alfred provided that a father should not sell his daughter to servitude among strange people. Later the English laws forbade the trade entirely, but we read of Bristol merchants in the eleventh century who not only bought slaves

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